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The DESY Keyword Thesaurus 1977



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The terms in this thesaurus are used in the DESY information System for the indexing of papers on high-energy physics and quantum field theory.

### 1. Purpose of Keyword Assignment

Our keywords serve the following purposes:

they make possible mechanized information retrieval and SDI (Selective Dissemination of Information) service at DESY and other high-energy physics centers,

they allow the establishment of a subject index for the biweekly periodical HIGH ENERGY PHYSICS INDEX.

The total of keywords assigned to a paper may also be of some use as a sort of abstract.

### 2. Form of Keyword Assignment

Keywords may be used singly or coupled by comma and blank (examples: FIELD THEORY (single) and FIELD THEORY, NONABELIAN (coupled)). While the first term is generally a regular keyword, the second term may be a keyword or a non-keyword. Regular keywords are shown in this Thesaurus ordered by subject (p.3) and ordered alphabetically (p.5).

Non-keywords which are frequently used are standardized; they are contained in the alphabetical list.

The following keywords are very frequently used in connection with non-keywords: MODEL, APPROXIMATION, SYMMETRY, EXCHANGE.

### 3. Two-Particle Combination (Reactions)

Most of the combinations of any two particles (but not all) in the list below are single regular keywords. The particle coming first in the list should come first in the combination.

(example: PHOTON NEUTRINO is a keyword, but NEUTRINO PHOTON is not a keyword. Combinations of this type may occur in expressions like PHOTON NEUTRINO, ELASTIC SCATTERING. They also occur on the left-hand side of the reaction equations (see 4)).

PHOTON	K	ANTILAMBDA
LEPTON	ANTI-K	SIGMA
FERMION	K0	ANTISIGMA
NEUTRINO	K+	SIGMA+
ANTINEUTRINO	K-	SIGMA0
ELECTRON	MESON RESONANCE	SIGMA-
POSITRON	BARYON	XI
MUON	ANTIBARYON	ANTIXI
MUON+	NUCLEON	XIO
MUON-	ANTINUCLEON	XI-
HADRON	ANTI-P	OMEGA-
MESON	P	VECTOR MESON
BOSON	N	BARYON RESONANCE
PI	ANTI-N	DEUTERON
PIO	HYPERON	LIGHT NUCLEUS
PI+	ANTIHYPERON	NUCLEUS
PI-	LAMBDA	QUARK
		INTERMEDIATE BOSON

#### 4. Reaction Equations

Reactions of two particles or decay modes are given as in the following examples:

ANTI-P P --> K0 K- PI+  
P P --> P ANYTHING  
DELTA(1236)0 --> P PI-  
ANTI-P P --> DELTA(1236)(P PI-) PI+ PI- (+)

Particles on the left-hand side are arranged in the order of rising masses, particles on the right-hand side are arranged in the order of falling masses.

#### 5. Other Particle Combinations

Three-particle combinations (non-keywords) succeeding keywords like VERTEX FUNCTION or COUPLING CONSTANT or INTERFERENCE are listed in the order of rising masses (example: COUPLING CONSTANT, MESON NUCLEON NUCLEON). Final or intermediate states are also given if they are of importance; here the particles are listed in parentheses in the order of falling masses (example: FINAL STATE, (NUCLEON 2PI)).

#### 6. Resonances

Meson and baryon resonances are generally named as in the 1976 Particle Data Group Tables; charge states are indicated only for the rho(765) and the Delta(1236).

#### 7. Depth of Indexing

Papers on peripheral topics will usually have fewer keywords per paper than papers on high-energy physics. Examples of peripheral topics are quantum mechanics, statistical mechanics, gravitation, and astrophysics.

#### 8. Alphabetical Keyword List

There are three kinds of entries in the alphabetical list:

regular keywords (boldface and blank space in Column 1)

standardized non-keywords ("\*" in Column 1); these terms will generally occur as companions to regular keywords. There are also non-keywords which have not been standardized; they are not contained in this thesaurus.

terms which are not used ("—" in Column 1).

Comments or rules of use are given in parentheses. "Restricted use" means that a keyword is used only in cases where it is of central importance in the paper considered.

Entries are ordered in the IBM sorting sequence:

blank.(+\*);-/,<>:'=A...Z 0...9

(+) The decay products of the DELTA(1236) are given in parentheses (cf. the previous equation).

## KEYWORDS BY SUBJECT

This list contains only the regular keywords. Large-case headings and terms in parentheses are NOT keywords.  
For standardized non-keywords the alphabetical list should be consulted.

PARTICLES	U(2375)	hadron spectroscopy	high energy behavior
<u>photon</u>	K*(892)	charged particle	inclusive reaction
<u>lepton</u>	Q region	neutral particle	interference
	Q1(1300)	new particle	kinematics
<u>neutrino</u>	Q2(1400)	postulated particle	longitudinal momentum
neutrino/e/	K(1420)	search for	mass spectrum
neutrino/mu/	L(1770)	mass enhancement	momentum spectrum
neutrino/L/	K*(1780)	charmed particle	momentum transfer
antineutrino	D*	charmed hadron	multiple production
antineutrino/e/	D**	charmed baryon	multiplicity
antineutrino/mu/	F*	charmed meson	radiation
antineutrino/L/	F**	colored particle	recoil
electron	psi mesons	strange particle	scattering
positron	X(2800)	hyperfragment	secondary radiation
muon	J/psi(3100)	nucleus	showers
muon+	chi(3410)	light nucleus	threshold
muon-	PC(3510)	deuteron	total cross section
antilepton	chi(3550)	tritium	transverse momentum
heavy lepton	psi(3700)	excited nucleus	
	psi(3950) structure	nuclide	
<u>meson</u>	psi(4100) structure	atom	INSTRUMENTS AND METHODS
	psi(4400)	positronium	(track measuring)
<u>pi</u>	baryon resonance	ion	bubble chamber
pi+	nucleon resonance	(for two-particle	bubble chamber (hydrogen)
pi-	N'(1470)	combinations, see	bubble chamber (deuteron)
K	N'(1520)	alphabetical list)	bubble chamber (heavy liquid)
K+	N' 1535)	PARTICLE PROPERTIES	cloud chamber
K-	N(1670)	charge	drift chamber
KO(L)	N(1688)	decay modes	nuclear emulsion
KO(S)	N'(1700)	electric moment	proportional chamber
anti-K	N'(1780)	excited state	spark chamber
anti-KO	N(1860)	isospin	streamer chamber
D	N(2190)	lifetime	hybrid system
D+	N(2220)	magnetic moment	track photography
DO	N(2650)	mass	tracks
F	N(3030)	mass difference	<u>counters and detectors</u>
	Delta(1236)	parity	Cherenkov counter
<u>nucleon</u>	Delta(1236)+	quantum number	four-pi-detector
p	Delta(1236)++	spin	Geiger-Mueller counter
anti-p	Delta(1236)-	helicity	hodoscope
n	Delta(1236)--	polarization	ionization chamber
anti-n	Delta(1236)0	strangeness	liquid argon detector
	Delta(1650)	INTERACTIONS	magnetic detector
<u>antinucleon</u>	Delta(1670)	gravitation	magnetic spectrometer
	Delta(1890)	weak interaction	particle identification
<u>hyperon</u>	Delta(1910)	neutral current	proportional counter
Lambda	Delta(1950)	electromagnetic interaction	scintillation counter
Antilambda	Delta(2420)	bremsstrahlung	semiconductor detector
Sigma	Delta(2850)	Compton scattering	shower detector
Sigma+	Delta(3230)	electroproduction	solid-state counter
Sigma-	Lambda(1405)	hyperfine structure	spectrometer
Sigma0	Lambda'(1520)	ionization	total-absorption counter
Antisigma	Lambda'(1670)	multiple scattering	<u>(electronics and computers)</u>
Xi	Lambda''(1690)	pair	analog circuit
Xi-	Lambda(1815)	photoproduction	analog logic
Xi0	Lambda(1830)	radiative correction	analog-to-digital converter
Antixi	Lambda(2100)	strong interaction	digital logic
Omega-	Lambda(2350)	charge exchange	fast logic
antihyperon	Lambda(2585)	(other keywords)	preprocessing
	Sigma(1385)	absorption	microprocessor
<u>meson resonance</u>	Sigma'(1670)	angular correlation	CAMAC system
eta(549)	Sigma'(1750)	angular distribution	interface
epsilon(700)	Sigma(1765)	angular momentum	programming
rho(765)	Sigma(1915)	backscatter	computer
rho(765)+	Sigma''(1940)	binding energy	<u>(data analysis)</u>
rho(765)-	Sigma(2030)	capture	data analysis method
rho(765)0	Sigma(2250)	channel cross section	amplitude analysis
omega(784)	Sigma(2455)	coupling	multidimensional analysis
eta'(958)	Sigma(2620)	cross section	statistical analysis
delta(970)	Xi(1530)	decay	partial-wave analysis
S*(1000)	Xi(1820)	differential cross section	track data analysis
phi(1019)	Xi(1940)	diffraction	<u>accelerator</u>
A1(1070)		diffusion	cyclotron
B(1235)	(other keywords)	elastic scattering	synchro-cyclotron
f(1260)	particle	emission	betatron
D(1285)	antiparticle	energy dependence	synchrotron
A2(1310)	vector meson	energy levels	proton synchrotron
E(1422)	scalar meson	energy loss	electron synchrotron
f'(1514)	pseudoscalar meson	energy spectrum	linear accelerator
pi/rho(1540)	intermediate boson	exchange	storage ring
rho'(1600)	baryon	final state	<u>(internal and external beams)</u>
A3(1640)	antibaryon	form factor	aberration
omega(1675)	boson		beam
G(1680)	fermion		beam damping
rho(1710)	antifermion		beam dynamics
S(1930)	quark		
H(2050)	hadron		

beam emittance	potential scattering	MATERIALS
beam focusing	S-matrix	alloy
beam instability	scattering amplitude	ceramics
beam loading	scattering length	chemicals
beam monitoring	selection rule	compounds
beam optics	spinor	concrete
beam oscillation	sum rule	crystal
betatron oscillation	vertex function	gas
synchrotron oscillation	violation	glass
beam transport	NUCLEAR PHYSICS	inorganic compounds
bending magnet	nuclear physics	liquid
bunching	charge distribution	metal
colliding beams	fission	mineral
ejection	fusion	organic compounds
injection	nuclear properties	plastics
luminosity	nuclear model	rubber
particle separator	nuclear force	semiconductor
particle source	nuclear reaction	solids
pulsed magnet	photofission	steel
quadrupole lens	electrofission	water
RF system	radioactivity	
target		
<u>(other keywords)</u>		
alignment	GENERAL PHYSICS	MODAL KEYWORDS
background	astrophysics	activity report
calibration	atomic physics	bibliography
coil	correction	book
feedback	correlation	conference
health physics	cosmic radiation	data compilation
dosimetry	current	lectures
magnet	density	manual
measurement	dependence	proposed experiment
monitoring	effect	review
orbit	electric field	tables
power supply	electricity	thesis
secondary radiation	electromagnetic field	1977
shielding	elements	
	energy	
	flux	
	fundamental constant	
	forces	
	magnetic field	
	matter	
	antimatter	
	mechanics	
	moment	
	momentum	
	nonrelativistic	
	optics	
	plasma	
	potential	
	quantum mechanics	
	relativity theory	
	resonance	
	spectra	
	superconducting	
	temperature	
	thermodynamics	
	transmission	
	OTHER FIELDS	
	<u>mathematics</u>	
	algebra	
	functional analysis	
	group theory	
	mathematical methods	
	numerical mathematics	
	statistics	
	transformation	
	<u>chemistry</u>	
	(all elements)	
	<u>molecular biology</u>	
	<u>engineering</u>	
	buildings	
	communications	
	control system	
	electrical engineering	
	heat engineering	
	low temperature	
	mechanical engineering	
	microwaves	
	nuclear engineering	
	power engineering	
	safety	
	vacuum system	
	<u>nuclear medicine</u>	
<u>THEORY OF PARTICLES AND FIELDS</u>		
<u>field theory</u>		
analytic properties		
axiomatic field theory		
Bethe-Salpeter equation		
dual field theory		
expansion 1/N		
Feynman graph		
field equations		
field theoretical model		
gauge field theory		
light cone behavior		
perturbation theory		
propagator		
quantization		
quantum chromodynamics		
quantum electrodynamics		
renormalization		
renormalization group		
scaling		
statistical mechanics		
unified field theory		
<u>theory of elementary particles</u>		
bootstrap		
charged current		
current algebra		
dispersion relations		
duality		
final-state interaction		
model		
Regge poles		
Regge cut		
pomeron		
spectral representation		
Mandelstam representation		
symmetry		
symmetry breaking		
mass formula		
multiplet		
unitarity		
<u>(other keywords)</u>		
approximation		
conservation law		
coupling constant		
invariance		
leptoproduction		
many-body problem		
three-body problem		
partial wave		

# ALPHABETICAL KEYWORD LIST

A

*ABC (ENHANCEMENT, ABC)	ANTI-KO NUCLEUS
-ABELIAN FIELD THEORY (USE 'FIELD THEORY')	ANTI-KO P
ABERRATION	ANTI-KO QUARK
*ABFST (MODEL, ABFST)	ANTI-KO VECTOR MESON
ABSORPTION	ANTI-N
-ABSORPTIVE CORRECTION ('CORRECTION, ABSORPTION'; USED ONLY FOR EXPERIMENTAL CORRECTION)	ANTI-N BARYON RESONANCE
-ABSORPTIVE MODEL (MODEL, ABSORPTION)	ANTI-N DEUTERON
*ABSORPTIVE PERIPHERAL (MODEL, ABSORPTIVE PERIPHERAL)	ANTI-N HYPERON
-ABSTRACT ONLY (NOT USED AS A KEYWORD. APPEARS BEHIND THE TITLE)	ANTI-N INTERMEDIATE BOSON
ACCELERATOR	ANTI-N LAMBDA
*ACCEPTANCE ('COUNTERS AND DETECTORS, ACCEPTANCE' OR 'ACCELERATOR, ACCEPTANCE')	ANTI-N LIGHT NUCLEUS
*ACOUSTIC (SPARK CHAMBER, ACCUSTIC)	ANTI-N NUCLEUS
ACTINIUM	ANTI-N OMEGA-
-ACTION PRINCIPLE (SEE 'FIELD THEORY')	ANTI-N QUARK
-ACTION-AT-A-DISTANCE (AXIOMATIC FIELD THEORY)	ANTI-N SIGMA
ACTIVITY REPORT	ANTI-N SIGMA+
-ACC (ANALOG-TO-DIGITAL CONVERTER)	ANTI-N SIGMA-
-ADEMULLI-GATTO THEOREM (SYMMETRY BREAKING)	ANTI-N SIGMAO
*ADLER (SUM RULE, ADLER)	ANTI-N VECTOR MESON
-ADLER CONDITION ('MODEL, PCAC' AND 'CURRENT ALGEBRA')	ANTI-N XI
-ADLER-BELL-GROSS-JACKIW (CURRENT ALGEBRA)	ANTI-N XI-
*ADLER-DASHEN-HELLWIG-FUBINI (SUM RULE, ADLER-DASHEN-HELLWIG-FUBINI)	ANTI-N XIO
-ADLER-WEISBERGER RELATION ('MODEL, PCAC' AND 'CURRENT ALGEBRA')	ANTI-P
*ADMIXTURE	*ANTI-P ATOM
*AEROGEL (CHERENKOV COUNTER, AEROGEL)	ANTI-P BARYON RESONANCE
-AGS ACCELERATOR ('PROTON SYNCHROTRON'; FOR EXPERIMENTAL RESULTS USE 'BRUOKHAVEN PS')	ANTI-P DEUTERON
*AIR (SHOWERS, AIR)	ANTI-P HYPERON
ALGEBRA (SEE ALSO 'ALGEBRA, C*' OR 'ALGEBRA, VON NEUMANN' OR 'ALGEBRA, CLIFFORD' OR 'ALGEBRA, WEYL' OR 'ALGEBRA, LIE' OR 'ALGEBRA, GRASSMANN')	ANTI-P INTERMEDIATE BOSON
ALIGNMENT (SEE ALSO 'POLARIZATION')	ANTI-P LAMBDA
ALLOY	ANTI-P LIGHT NUCLEUS
-ALPHA MODEL (NUCLEAR MODEL)	ANTI-P N
-ALPHA PARTICLE (HELlUM)	-ANTI-P NUCLEON (NUCLEON ANTI-P)
ALUMINUM	ANTI-P NUCLEUS
*AMATI-FUBINI-STANGHELLINI ('MODEL, AMATI-FUBINI-STANGHELLINI' AND 'MODEL, MULTIPERIPHERAL')	ANTI-P OMEGA-
AMERICIUM	ANTI-P P
*AMPLIFIER (SEE ALSO 'ANALOG CIRCUIT'. USED ONLY IN CONNECTION WITH CHAMBERS)	ANTI-P QUARK
AMPLITUDE ANALYSIS ('INTERPRETATION OF EXPERIMENTS, AMPLITUDE ANALYSIS', 'SPIN, AMPLITUDE ANALYSIS')	ANTI-P SIGMA
ANALOG CIRCUIT (SEE ALSO 'ANALOG LOGIC')	ANTI-P SIGMA+
ANALOG LOGIC (SEE ALSO 'ANALOG CIRCUIT')	ANTI-P SIGMA-
-ANALOG MODEL	ANTI-P SIGMAO
ANALOG-TO-DIGITAL CONVERTER	ANTI-P VECTOR MESON
ANALYTIC PROPERTIES (RESTRICTED USE; NOT FOR REGGE POLOLOGY, STRUCTURE FUNCTIONS AND GENERALLY IN CONNECTION WITH OTHER KEYWORDS, THE ANALYTIC PROPERTIES OF WHICH ARE INVESTIGATED)	ANTI-P XI
-ANALYTICITY (ANALYTIC PROPERTIES)	ANTI-P XI-
ANGULAR CORRELATION	ANTI-P XIO
ANGULAR DEPENDENCE	ANTIBARYON
ANGULAR DISTRIBUTION	ANTIBARYON BARYON RESONANCE
ANGULAR MOMENTUM	ANTIBARYON DEUTERON
-ANHARMONIC OSCILLATOR (MODEL, OSCILLATOR)	ANTIBARYON HYPERON
ANISOTROPY (USED ONLY IN COSMIC-RADIATION PROBLEMS)	ANTIBARYON INTERMEDIATE BOSON
*ANNIHILATION	ANTIBARYON LAMBDA
*ANOMALY	ANTIBARYON LIGHT NUCLEUS
ANTI-K	ANTIBARYON N
ANTI-K BARYON	ANTIBARYON NUCLEON
ANTI-K DEUTERON	ANTIBARYON OMEGA-
-ANTI-K K (K ANTI-K; SEE ALSO 'ANTI-KO K0')	ANTIBARYON P
ANTI-K LIGHT NUCLEUS	ANTIBARYON QUARK
ANTI-K N	ANTIBARYON SIGMA
ANTI-K NUCLEON	ANTIBARYON SIGMA+
ANTI-K NUCLEUS	ANTIBARYON SIGMA-
ANTI-K P	ANTIBARYON SIGMAO
ANTI-KO	ANTIBARYON VECTOR MESON
ANTI-KO BARYON	ANTIBARYON XI
ANTI-KO BARYON RESONANCE	ANTIBARYON XI-
ANTI-KO DEUTERON	ANTIBARYON XIO
ANTI-KO INTERMEDIATE BOSON	-ANTIEUTERON (DEUTERON, ANTIPARTICLE)
ANTI-KO K+	ANTIFERMION
ANTI-KO K-	ANTIFERMION FERMION
ANTI-KO K0	-ANTIHADRON (HADRON, ANTIPARTICLE)
ANTI-KO LAMBDA	ANTIHYPERON
ANTI-KO LIGHT NUCLEUS	ANTIHYPERON BARYON RESONANCE
ANTI-KO MESON RESONANCE	ANTIHYPERON DEUTERON
ANTI-KO N	ANTIHYPERON INTERMEDIATE BOSON
ANTI-KO NUCLEON	ANTIHYPERON LIGHT NUCLEUS
	ANTIHYPERON NUCLEUS
	ANTIHYPERON QUARK
	ANTILAMBDA
	ANTILAMBDA BARYON RESONANCE
	ANTILAMBDA DEUTERON
	ANTILAMBDA INTERMEDIATE BOSON
	ANTILAMBDA LIGHT NUCLEUS
	ANTILAMBDA NUCLEUS
	ANTILAMBDA QUARK
	ANTILAMBDA VECTOR MESON
	ANTILEPTON
	-ANTILEPTON LEPTON (SEE 'LEPTON ANTILEPTON')
	ANTIMATTER
	ANTIMONY
	ANTINEUTRINO
	ANTINEUTRINO ANTI-KO
	ANTINEUTRINO ANTI-N
	ANTINEUTRINO ANTI-P
	ANTINEUTRINO ANTIBARYON

A ANTINEUTRINO ANTINEUTRINO  
ANTINEUTRINO ANTINUCLEON  
ANTINEUTRINO BARYON  
ANTINEUTRINO BARYON RESONANCE  
ANTINEUTRINO BOSON  
ANTINEUTRINO DEUTERON  
ANTINEUTRINO ELECTRON  
ANTINEUTRINO HADRON  
ANTINEUTRINO HYPERON  
ANTINEUTRINO INTERMEDIATE BOSON  
ANTINEUTRINO K  
ANTINEUTRINO K+  
ANTINEUTRINO K-  
ANTINEUTRINO KO  
ANTINEUTRINO LAMBDA  
ANTINEUTRINO LIGHT NUCLEUS  
ANTINEUTRINO MESON  
ANTINEUTRINO MESON RESONANCE  
ANTINEUTRINO MUON  
ANTINEUTRINO MUON+  
ANTINEUTRINO MUON-  
ANTINEUTRINO N  
ANTINEUTRINO NUCLEON  
ANTINEUTRINO NUCLEUS  
ANTINEUTRINO OMEGA-  
ANTINEUTRINO P  
ANTINEUTRINO PI  
ANTINEUTRINO PI+  
ANTINEUTRINO PI-  
ANTINEUTRINO PIO  
ANTINEUTRINO POSITRON  
ANTINEUTRINO QUARK  
ANTINEUTRINO SIGMA  
ANTINEUTRINO SIGMA+  
ANTINEUTRINO SIGMA-  
ANTINEUTRINO SIGMAO  
ANTINEUTRINO VECTOR MESON  
ANTINEUTRINO XI  
ANTINEUTRINO XI-  
ANTINEUTRINO XIO  
ANTINEUTRINO/E/  
ANTINEUTRINO/L/ (HEAVY LEPTON ANTINEUTRINO)  
ANTINEUTRINO/MU/  
-ANTINEUTRINOPRODUCTION (NEUTRINOPRODUCTION)  
-ANTINEUTRON (ANTI-N)  
ANTINUCLEON BARYON RESONANCE  
ANTINUCLEON DEUTERON  
ANTINUCLEON HYPERON  
ANTINUCLEON INTERMEDIATE BOSON  
ANTINUCLEON LAMBDA  
ANTINUCLEON LIGHT NUCLEUS  
ANTINUCLEON N  
ANTINUCLEON NUCLEUS  
ANTINUCLEON OMEGA-  
ANTINUCLEON P  
ANTINUCLEON QUARK  
ANTINUCLEON SIGMA  
ANTINUCLEON SIGMA+  
ANTINUCLEON SIGMA-  
ANTINUCLEON SIGMAO  
ANTINUCLEON VECTOR MESON  
ANTINUCLEON XI  
ANTINUCLEON XI-  
ANTINUCLEON XIO  
\*ANTINUCLEUS  
ANTIMEGA-  
ANTIPARTICLE  
-ANTIPARTICLE PARTICLE (USE 'PARTICLE  
ANTIPARTICLE')

-ANTIQUARK ('QUARK, ANTI PARTICLE'. SEE ALSO  
'QUARK ANTIQUARK')  
ANTISIGMA  
ANTISIGMA BARYON RESONANCE  
ANTISIGMA DEUTERON  
ANTISIGMA INTERMEDIATE BOSON  
ANTISIGMA LIGHT NUCLEUS  
ANTISIGMA NUCLEUS  
ANTISIGMA QUARK  
ANTISIGMA+  
ANTISIGMA-  
ANTISIGMAO  
ANTIXI  
ANTIXI BARYON RESONANCE  
ANTIXI DEUTERON  
ANTIXI INTERMEDIATE BOSON  
ANTIXI LIGHT NUCLEUS  
ANTIXI NUCLEUS  
ANTIXI QUARK  
ANTIXI VECTOR MESON  
ANTIXI-  
ANTIXIO  
\*ANYTHING (ONLY IN REACTIONS)  
\*ANYTHING+ (ONLY IN REACTIONS)  
\*ANYTHING- (ONLY IN REACTIONS)  
\*ANYTHINGO (ONLY IN REACTIONS)  
APPROXIMATION  
-ARGAND PLOT (USE 'PARTIAL-WAVE ANALYSIS')  
ARGON  
\*ARGONNE PS (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
-ARRAY (SEE 'HODOSCOPE' OR 'PROGRAMMING')  
ARSENIC  
\*ASSOCIATED PRODUCTION  
ASTATINE  
ASTROPHYSICS  
\*ASYMMETRY  
-ASYMPTOTIC BEHAVIOR (GENERALLY 'HIGH ENERGY  
BEHAVIOR', USED ONLY FOR THEORETIC MODELS IN THE  
ASYMPTOTIC RANGE, AND ONLY WHERE HIGH ENERGY  
BEHAVIOR IS NOT IMPLICITLY CONTAINED IN OTHER  
KEYWORDS LIKE 'REGGE POLES' OR 'FACTORIZATION'.  
FOR ASYMPTOTIC BEHAVIOR AT LOW ENERGIES SEE  
'INFRARED PROBLEM')  
\*ASYMPTOTIC FREEDOM ('FIELD THEORY, ASYMPTOTIC  
FREEDOM'; FOR LOW ENERGIES USE 'FIELD THEORY,  
INFRARED PROBLEM')  
\*AT REST (IN ENERGY CATEGORY, '0 GEV' IS ADDED)  
ATOM  
-ATOMIC BEAM (USE 'BEAM, ATOM')  
-ATOMIC NUMBER (USE 'MASS NUMBER')  
ATOMIC PHYSICS  
-AUTOMODELITY (SCALING)  
-AUXILIARY CIRCUITS (IF ELECTRONICS, GENERALLY  
'DIGITAL LOGIC'. IF NOT ELECTRONICS, 'ELECTRICAL  
ENGINEERING')  
\*AXIAL  
\*AXIAL-VECTOR (CURRENT, AXIAL-VECTOR)  
\*AXIAL-VECTOR MESON  
\*AXIAL-VECTOR MESON DOMINANCE (MODEL, AXIAL-  
VECTOR MESON DOMINANCE)  
AXIOMATIC FIELD THEORY  
A1{1070}  
-A2 EXCHANGE (EXCHANGE, A2{1310})  
-A2 SPLITTING (A2{1310}, MASS DIFFERENCE)  
A2{1310}  
A3{1640}

B1235  
BACKGROUND  
-BACKGROUND RADIATION (RADIATION, BACKGROUND)  
BACKSCATTER  
-BACKWARD SCATTERING (BACKSCATTER)  
\*BAG (MODEL, BAG)  
\*BALI-CHEW-PIGNOTTI (MODEL, BALI-CHEW-PIGNOTTI)  
-BAVACH SPACE (USE 'LINEAR SPACES')  
\*BARDAKCI-RUEGG (MODEL, BARDAKCI-RUEGG)  
\*BARDAKCI-RUEGG-VIRASORO (MODEL, BARDAKCI-RUEGG-VIRASORO)  
BARIUM  
BARYON (ALSO 'MODEL, BARYON')  
BARYON ANTI-N  
BARYON ANTI-P  
BARYON ANTIBARYON  
BARYON ANTIHYPERON  
BARYON ANTILAMBDA  
BARYON ANTINUCLEON  
BARYON ANTISIGMA  
BARYON ANTIXI  
BARYON BARYON  
BARYON BARYON RESONANCE  
BARYON DEUTERON  
-BARYON EXCHANGE (EXCHANGE, BARYON)  
BARYON HYPERON  
BARYON INTERMEDIATE BOSON  
BARYON LAMBDA  
BARYON LIGHT NUCLEUS  
-BARYON MODEL (MODEL, BARYON)  
BARYON N  
BARYON NUCLEON  
BARYON NUCLEUS  
-BARYON NUMBER (CONSERVATION LAW, BARYON)  
BARYON OMEGA-  
BARYON P  
-BARYON PIPE MODEL (EXCHANGE, BARYON)  
BARYON QUARK  
BARYON RESONANCE  
-BARYON RESONANCE BARYON RESONANCE (BARYON RESONANCE, BARYON BARYON)  
BARYON RESONANCE DEUTERON  
-BARYON RESONANCE FORMATION (USE 'BARYON RESONANCE, SCATTERING')  
BARYON RESONANCE LIGHT NUCLEUS  
BARYON RESONANCE NUCLEUS  
BARYON RESONANCE QUARK  
BARYON SIGMA  
BARYON SIGMA+  
BARYON SIGMA-  
BARYON SIGMAO  
BARYON VECTOR MESON  
BARYON XI  
BARYON XI-  
BARYON XIO  
-BARYONIC NUMBER (USUALLY 'CONSERVATION LAW, BARYON'; SEE ALSO 'QUANTUM NUMBER, BARYON')  
\*BATAVIA PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
BEAM  
-BEAM CALIBRATION (BEAM MONITORING)  
-BEAM CHOPPER (SEE 'BUNCHING')  
-BEAM COOLING (USE 'BEAM DAMPING')  
BEAM DAMPING  
\*BEAM DUMPING (STORAGE RING, BEAM DUMPING)  
BEAM DYNAMICS  
BEAM EMMITTANCE  
BEAM FOCUSING  
BEAM INSTABILITY  
-BEAM LINES (SEE 'BEAM TRANSPORT')  
BEAM LOADING  
BEAM MONITORING  
BEAM OPTICS  
BEAM OSCILLATION  
-BEAM POLARIZATION (USE 'BEAM, POLARIZATION' FOR MEASUREMENT OF POLARIZATION DEGREE. SEE ALSO 'POLARIZED BEAM')  
-BEAM SEPARATOR (USE 'PARTICLE SEPARATOR')  
-BEAM STOP (SEE 'BEAM DUMPING')  
BEAM TRANSPORT  
\*BEAM-BEAM (SCATTERING, BEAM-BEAM)  
\*BELL-STEINBERGER (MODEL, BELL-STEINBERGER)  
BENDING MAGNET  
\*BERKELEY CYCL (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
\*BERKELEY PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
BERKELIUM  
-BERMAN-BJORKEN-KUGUT MODEL (TRANSVERSE MOMENTUM, HIGH)  
BERYLLOM  
-BETA DECAY (SEMLEPTONIC DECAY)  
-BETA FUNCTION (SEE 'BEAM OPTICS' OR 'RENORMALIZATION GROUP, CALLAN-SYMANZIK EQUATION')

BETATRON  
BETATRON OSCILLATION  
-BETHE-GOLDSTONE (NOT USED)  
\*BETHE-HEITLER (APPROXIMATION, BETHE-HEITLER)  
BETHE-SALPETER EQUATION  
-BHABHA SCATTERING (ELECTRON POSITRON, ELASTIC SCATTERING)  
\*BIALAS-ZALEWSKI (MODEL, BIALAS-ZALEWSKI)  
BIBLIOGRAPHY  
-BILOCAL CURRENT ALGEBRA (FIELD THEORY, OPERATOR ALGEBRA)  
-BILOCAL OPERATOR ALGEBRA (FIELD THEORY, OPERATOR ALGEBRA)  
BINDING ENERGY  
BISMUTH  
\*BJORKEN (SCALING, BJORKEN)  
\*BJORKEN LIMIT (HIGH ENERGY BEHAVIOR, BJORKEN LIMIT)  
-BJORKEN MODEL (HIGH ENERGY BEHAVIOR, BJORKEN LIMIT)  
-BJORKEN-JOHNSON-LOW (HIGH ENERGY BEHAVIOR, BJORKEN LIMIT)  
-BJORKEN-KUGUT MODEL (USE 'INCLUSIVE REACTION, EXCLUSIVE REACTION')  
-BJORKEN-PASCHOS (MODEL, PARTON)  
BLACK HOLE (GRAVITATION)  
-BLANKENBECLER-BRODSKY-GUNION (MODEL, CONSTITUENT INTERCHANGE)  
BLOCK TRANSFER (DIGITAL LOGIC, READOUT)  
\*BLOOM-GILMAN ('SUM RULE, BLOOM-GILMAN' OR 'DUALITY, BLOOM-GILMAN')  
\*BLOWUP (BEAM, BLOWUP)  
-BLUMELEIN LINE (SEE 'POWER SUPPLY' AND 'STREAMER CHAMBER')  
\*BONN ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
BOOK  
\*BOOSTER  
BOOTSTRAP  
\*BORN (APPROXIMATION, BORN)  
BORON  
BOSON (ALSO: 'MODEL, BOSON')  
BOSON ANTI-KO  
BOSON ANTI-N  
BOSON ANTI-P  
BOSON ANTIBARYON  
BOSON ANTIHYPERON  
BOSON ANTILAMBDA  
BOSON ANTINUCLEON  
BOSON ANTISIGMA  
BOSON ANTIXI  
BOSON BARYON  
BOSON BARYON RESONANCE  
BOSON BOSON  
BOSON DEUTERON  
BOSON HYPERON  
BOSON INTERMEDIATE BOSON  
BOSON K  
BOSON K+  
BOSON K-  
BOSON KO  
BOSON LAMBDA  
BOSON LIGHT NUCLEUS  
BOSON MESON RESONANCE  
BOSON N  
BOSON NUCLEON  
BOSON NUCLEUS  
BOSON OMEGA-  
BOSON P  
BOSON PI  
BOSON PI+  
BOSON PI-  
BOSON PIO  
BOSON QUARK  
BOSON SIGMA  
BOSON SIGMA+  
BOSON SIGMA-  
BOSON SIGMAO  
BOSON VECTOR MESON  
BOSON XI  
BOSON XI-  
BOSON XIO  
-BOUNDED ELECTRONS (ATOMIC PHYSICS)  
\*BOUNDED STATE ('MODEL' IS OMITTED)  
\*BOUNDARY CONDITION (MODEL, BOUNDARY CONDITIONS)  
-BOX DIAGRAM (SEE 'FEYNMAN GRAPH' (RESTRICTED USE))  
-BPHZ (RENORMALIZATION, REGULARIZATION)  
\*BRANCH HIGHWAY (CAMAC SYSTEM, BRANCH HIGHWAYS)  
\*BRANCHING RATIO (VERY RESTRICTED USE: ONLY IN CASE OF MEASURED OR CALCULATED NUMERICAL VALUE)

B  
-BRANS-DICKE (GRAVITATION)  
\*BREAKUP ('FISSION, BREAKUP' CR, E.G.,  
 'P, BREAKUP')  
\*BREIT-WIGNER (MODEL, BREIT-WIGNER)  
BREMSSTRAHLUNG (ALSO 'MODEL, BREMSSTRAHLUNG')  
-BRJKEN SYMMETRY (SYMMETRY BREAKING)  
BROMINE  
\*BROOKHAVEN LINAC (ONLY FOR EXPERIMENTAL RESULTS  
 GAINED THERE)  
\*BROOKHAVEN PS (ONLY FOR EXPERIMENTAL RESULTS  
 GAINED THERE)

BUBBLE CHAMBER  
BUBBLE CHAMBER(DEUTERON)  
BUBBLE CHAMBER(HEAVY LIQUID)  
-BUBBLE CHAMBER(HELIUM) (USE 'BUBBLE CHAMBER'  
 AND 'HELIUM')  
BUBBLE CHAMBER(HYDROGEN)  
BUILDINGS  
BUNCHING  
\*BYPASS (STORAGE RING, BYPASS)  
-BS MODEL ('MODEL, VENEZIANO' AND 'MODEL,  
 N-PJNT FUNCTION')

-C INVARIANCE (INVARIANCE, CHARGE CONJUGATION)  
 -C MESON RESONANCE (Q REGION)  
 \*C\* (ALGEBRA, C\*)  
 -C-PARITY (QUANTUM NUMBER, CHARGE CONJUGATION)  
 \*CABIBBO (MODEL, CABIBBO)  
 \*CABIBBO ANGLE (WEAK INTERACTION, CABIBBO ANGLE)  
 \*CABIBBO-HORWITZ-NE'EMAN (MODEL, CABIBBO-HORWITZ-NE'EMAN)  
 \*CABIBBO-MAIANI-PREPARATA (MODEL, CABIBBO-MAIANI-PREPARATA)  
 \*CABIBBO-RADICATI ('SUM RULE, CABIBBO-RADICATI' AND 'CURRENT ALGEBRA')  
 CADMIUM  
 CALCIUM  
 -CALCULATIONS (SEE 'NUMERICAL CALCULATIONS')  
 CALIBRATION  
 CALIFORNIA  
 \*CALLAN-GROSS (SUM RULE, CALLAN-GROSS)  
 \*CALLAN-SYMANZIK EQUATION (RENORMALIZATION GROUP, CALLAN-SYMANZIK EQUATION)  
 \*CALLAN-TREIMAN RELATION (CURRENT ALGEBRA, CALLAN-TREIMAN RELATION)  
 -CALORIMETER (SEE 'TOTAL-ABSORPTION COUNTER' OR, IN SPECIAL CASES, 'IONIZATION CHAMBER'; FOR QUANTAMETERS SEE 'IONIZATION CHAMBER' AND 'BEAM MONITORING'; SEE ALSO 'LIQUID ARGON DETECTOR')  
 \*CALTECH ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 CAMAC SYSTEM  
 \*CAMBRIDGE ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*CANESCHI-PIGNOTTI (MODEL, CANESCHI-PIGNOTTI)  
 CAPTURE  
 CARBON  
 \*CARLITZ-KISLINGER (MODEL, CARLITZ-KISLINGER)  
 \*CASCADE ('MODEL, CASCADE' OR 'DECAY, CASCADE' JR 'NUCLEUS, CASCADE'; NOT USED FOR SHOWERS)  
 -CASCADE EVAPORATION MODEL (MODEL, CASCADE)  
 -CASIMIR OPERATOR (USE 'GROUP THEORY')  
 -CASTILLEJO-DALITZ-DYSON POLES (PARTIAL WAVE, DISPERSION RELATIONS)  
 \*CAUSALITY (SEE 'FIELD THEORY, CAUSALITY', 'QUANTUM MECHANICS, CAUSALITY' OR 'DISPERSION RELATIONS, CAUSALITY')  
 -CAVITY (SEE 'RF SYSTEM')  
 -CC (SEE 'CAMAC SYSTEM, CONTROLLER')  
 -COO POLES (PARTIAL WAVE, DISPERSION RELATIONS)  
 \*CELLU (PRIPJASE FJF PETRA; 'MAGNETIC DETECTOR, CELLU')  
 \*CENTRAL REGION (USE 'INCLUSIVE REACTION, CENTRAL REGION')  
 CERAMICS  
 CERIUM  
 \*CERN CYCL (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*CERN SPS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*CERN STOR (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*CERNL PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*CERNZ PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 -CERULUS-MARTIN (USE 'HIGH ENERGY BEHAVIOR' AND 'SCATTERING, WIDE-ANGLE')  
 CESIUM  
 -CGL (DISPERSION RELATIONS, CHEW-GOLDBERGER-LOW)  
 -CGLN (DISPERSION RELATIONS, CHEW-GOLDBERGER-LOW-NAMBU)  
 \*CHAN-LOSKIEWICZ-ALLISON (MODEL, CHAN-LOSKIEWICZ-ALLISON)  
 -CHANNEL (NOT TRANSLATED)  
 CHANNEL CROSS SECTION (USED FOR THE INTEGRATED DIFFERENTIAL CROSS SECTION OF A CHANNEL)  
 CHARGE  
 \*CHARGE CONJUGATION ('INVARIANCE, CHARGE CONJUGATION' OR 'VIOLATION, CHARGE CONJUGATION' OR 'QUANTUM NUMBER, CHARGE CONJUGATION')  
 CHARGE DISTRIBUTION (ONLY FOR NUCLEI. FOR PARTICLES SEE 'FORM FACTOR')  
 CHARGE EXCHANGE  
 -CHARGE INDEPENDENCE (USE 'NUCLEAR FORCES' OR 'MESON NUCLEON, INTERACTION')  
 -CHARGE STATISTICS (CHARGE, STATISTICS)  
 CHARGED CURRENT  
 CHARGED PARTICLE  
 \*CHARGED SCALAR (EXCHANGE, CHARGED SCALAR)  
 -CHARGED SCALAR STATIC MODEL ('MODEL, STATIC' AND 'EXCHANGE, CHARGED SCALAR')  
 \*CHARM (QUARK, CHARM)  
 \*CHARM CHANGING (CURRENT, CHARM CHANGING)  
 CHARMED BARYON

CHARMED HADRON  
 CHARMED MESON  
 CHARMED PARTICLE  
 \*CHARMONIUM (QUARK, CHARMONIUM)  
 -CHARPAK CHAMBER (PROPORTIONAL CHAMBER)  
 CHEMICALS  
 CHEMISTRY  
 -CHENG-DASHEN (SYMMETRY, CHIRAL)  
 \*CHENG-WU (MODEL, CHENG-WU)  
 \*CHERENKOV (RADIATION, CHERENKOV)  
 CHERENKOV COUNTER  
 -CHERENKOV RADIATION (RADIATION, CHERENKOV)  
 -CHERENKOV SPECTROMETER ('CHERENKOV COUNTER' AND 'COUNTERS AND DETECTORS')  
 -CHEW-FRAUTSCHI PLOT (REGGE POLES)  
 \*CHEW-GOLDBERGER-LOW (DISPERSION RELATIONS, CHEW-GOLDBERGER-LOW)  
 \*CHEW-GOLDBERGER-LOW-NAMBU (DISPERSION RELATIONS, CHEW-GOLDBERGER-LOW-NAMBU)  
 \*CHEW-LOW (MODEL, CHEW-LOW)  
 \*CHEW-MANDELSTAM (MODEL, CHEW-MANDELSTAM)  
 -CHEW-PIGNOTTI (MODEL, MULTIPERIPHERAL)  
 CHI(3410)  
 \*CHI(3450) (NEW PARTICLE, CHI(3450))  
 -CHI(3510) (USE 'PC(3510)')  
 CHI(3550)  
 \*CHIRAL (GENERALLY 'SYMMETRY, CHIRAL')  
 CHLORINE  
 \*CHOU-YANG (MODEL, CHOU-YANG)  
 CHROMIUM  
 -CIM (USE 'MODEL, CONSTITUENT INTERCHANGE')  
 -CIRCUIT ANALYSIS (SEE 'ELECTRONICS')  
 -CLA (MODEL, CHAN-LOSKIEWICZ-ALLISON)  
 \*CLASSICAL (FIELD THEORY, CLASSICAL)  
 \*CLEBSCH-GORDAN COEFFICIENTS (GROUP THEORY, CLEBSCH-GORDAN COEFFICIENTS)  
 \*CLIFFORD (ALGEBRA, CLIFFORD)  
 -CLOSED-LOOP DIAGRAM ('FIELD THEORY, HIGHER-ORDER' OR 'DUALITY, HIGHER-ORDER')  
 -CLOSED-ORBIT CORRECTION (CORRECTION, ORBIT)  
 \*CLOSURE (APPROXIMATION, CLOSURE)  
 CLOUD CHAMBER  
 \*CLUSTER (MODEL, CLUSTER)  
 \*CLUSTER ANALYSIS ('MULTIDIMENSIONAL ANALYSIS, CLUSTER ANALYSIS')  
 -CLUSTER EXPANSION ('FIELD THEORY' OR 'NUCLEAR PHYSICS')  
 COBALT  
 -COHEN-TANNOUDJI-HENYEE-KANE (SEE 'MODEL, ABSORPTION')  
 \*COHERENT INTERACTION (ALSO 'MODEL, COHERENT INTERACTION')  
 \*COHERENT PRODUCTION  
 \*COHERENT STATE (SEE 'QUANTUM MECHANICS, COHERENT STATE' OR 'QUANTUM ELECTRODYNAMICS, COHERENT STATE')  
 COIL  
 \*COINCIDENCE (FAST LOGIC, COINCIDENCE)  
 -COLEMAN-GLASHOW FORMULA (BARYON, MASS DIFFERENCE)  
 -COLEMAN-WEINBERG INSTABILITY (SYMMETRY BREAKING)  
 \*COLLECTIVE (USED ONLY IN 'ACCELERATOR, COLLECTIVE', SEE ALSO 'COLLECTIVE PHENOMENA')  
 \*COLLECTIVE PHENOMENA ('FIELD THEORY, COLLECTIVE PHENOMENA' OR 'NUCLEAR PHYSICS, COLLECTIVE PHENOMENA')  
 COLLIDING BEAMS (FOR EXPERIMENTS ONLY. FOR ACCELERATOR ASPECTS SEE 'STORAGE RING')  
 -COLLIDING-BEAM DETECTORS (USE APPROPRIATE KEYWORDS FOR CHAMBERS OR DETECTORS; SEE ALSO 'MAGNETIC DETECTOR' OR 'HYBRID SYSTEM' OR 'FOUR-PI-DETECTOR'; ADD 'MAGNETIC FIELD' WHERE APPROPRIATE)  
 \*COLOR (QUARK, COLOR)  
 COLORED PARTICLE  
 COMMUNICATIONS  
 \*COMMUTATION RELATIONS ('FIELD THEORY, COMMUTATION RELATIONS' OR 'CURRENT ALGEBRA, COMMUTATION RELATIONS' OR 'QUANTUM MECHANICS, COMMUTATION RELATIONS')  
 -COMMUTATOR (SEE 'COMMUTATION RELATIONS')  
 -COMPARISON OF EXPERIMENTAL RESULTS (INTERPRETATION OF EXPERIMENTS)  
 -COMPILER (USE 'COMPUTER' AND 'PROGRAMMING')  
 -COMPLEX REGGE POLES (REGGE POLES)  
 \*COMPOSITE (MODEL, COMPOSITE)  
 -COMPOSITE BOSON ('MODEL, BOSON' AND 'MODEL, COMPOSITE')  
 -COMPOSITE PARTICLE MODEL (MODEL, COMPOSITE)  
 -COMPOUND NUCLEUS (NUCLEAR REACTION)  
 COMPOUNDS  
 COMPTON SCATTERING  
 COMPUTER

C CONCRETE  
\*CONDENSATION (SEE 'PI, CONDENSATION' OR 'N, CONDENSATION')  
CONFERENCE  
\*CONFIGURATION (INTERFERENCE, CONFIGURATION)  
-CONFIGURATION MIXING (INTERFERENCE, CONFIGURATION)  
\*CONFINEMENT (QUARK, CONFINEMENT)  
\*CONFORMAL (INVARIANCE, CONFORMAL)  
-CONFORMAL MAPPING (SEE 'NUMERICAL MATHEMATICS' OR 'ANALYTIC PROPERTIES' OR 'DATA ANALYSIS METHOD')  
CONSERVATION LAW  
\*CONSERVED A-V CURRENT (MODEL, CONSERVED A-V CURRENT)  
\*CONSERVED VECTOR CURRENT (MODEL, CONSERVED VECTOR CURRENT)  
-COISPIRACY (USE 'REGGE POLES, FORWARD SCATTERING')  
\*CONSTITUENT INTERCHANGE (MODEL, CONSTITUENT INTERCHANGE)  
-CONSTITUTANT QUARK (SEE 'QUARK' OR 'MODEL, QUARK PARTON')  
\*CONSTRUCTIVE (FIELD THEORY, CONSTRUCTIVE)  
\*CONTACT COUPLING (MODEL, CONTACT COUPLING)  
-CONTACT INTERACTION (MODEL, CONTACT COUPLING)  
-CONTAMINATION (SEE 'DOSSIMETRY' OR 'BACKGROUND' OR 'ADMIXTURE')  
\*CONTINUOUS MASS (SUM RULE, CONTINUOUS MASS)  
\*CONTINUOUS MOMENT (SUM RULE, CONTINUOUS MOMENT)  
CONTROL SYSTEM  
\*CONTROLLER (CAMAC SYSTEM, CONTROLLER)  
\*COPLANAR (ANGULAR DISTRIBUTION, COPLANAR)  
COPPER  
\*CORNELL ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
CORRECTION  
CORRELATION  
COSMIC RADIATION  
-COSMOLOGY (SEE 'ASTROPHYSICS')  
\*COTS  
-COTTINGHAM FORMULA (MASS DIFFERENCE)  
\*COULOMB  
-COULOMB DISSOCIATION (NUCLEAR REACTION, COULOMB SCATTERING)

\*COULOMB SCATTERING  
COUNTERS AND DETECTORS  
\*COUPLED CHANNEL (PARTIAL-WAVE ANALYSIS, COUPLED CHANNEL)  
COUPLING (RESTRICTED USE)  
COUPLING CONSTANT (RESTRICTED USE, ONLY IN COMBINATIONS WITH PARTICLES)  
-COVARIANCE (USE 'INVARIANCE, LORENTZ' (RESTRICTED USE))  
\*CP ('INVARIANCE, CP' OR 'VIOLATION, CP')  
\*CPT ('INVARIANCE, CPT' OR 'VIOLATION, CPT')  
-CRATE CONTROLLER (CAMAC SYSTEM, CONTROLLER)  
-CRITICAL EXPONENT (SEE 'CRITICAL PHENOMENA')  
\*CRITICAL PHENOMENA ('FIELD THEORY, CRITICAL PHENOMENA' OR 'THERMODYNAMICS, CRITICAL PHENOMENA' OR 'STATISTICAL MECHANICS, CRITICAL PHENOMENA')  
-CRITICAL POINT (SEE 'CRITICAL PHENOMENA')  
CROSS SECTION (RESTRICTED USE, SEE ALSO 'TOTAL CROSS SECTION' OR 'DIFFERENTIAL CROSS SECTION' OR 'CHANNEL CROSS SECTION')  
\*CROSSING (SYMMETRY, CROSSING)  
-CRYOGENICS (SEE 'LOW TEMPERATURE' OR 'SUPERCONDUCTING')  
CRYSTAL  
-CRYSTAL SCINTILLATOR (USE 'SCINTILLATION COUNTER, CRYSTAL')  
CURIUM  
CURRENT (RESTRICTED USE)  
CURRENT ALGEBRA  
-CURRENT COMMUTATION RELATIONS (CURRENT ALGEBRA, COMMUTATION RELATIONS)  
-CURRENT COMMUTATORS (CURRENT ALGEBRA, COMMUTATION RELATIONS)  
-CURRENT CONSERVATION LAW (CURRENT, CONSERVATION LAW)  
-CURRENT QUARK MODEL (QUARK, CURRENT)  
\*CURRENT-CURRENT (EITHER 'MODEL, CURRENT-CURRENT' OR 'INTERFERENCE, CURRENT-CURRENT')  
-CURRENT-CURRENT MIXING (INTERFERENCE, CURRENT-CURRENT)  
\*CUTKOSKY-ZACHARIASEN (MODEL, CUTKOSKY-ZACHARIASEN)  
-CVC (MODEL, CONSERVED VECTOR CURRENT)  
CYCLOTRON

D  
 D(1285)  
 D+  
 D\*  
 D\*\*  
 \*D/F RATIO (COUPLING CONSTANT, D/F RATIO)  
 -DAC  
 \*DALITZ PLOT (MULTIDIMENSIONAL ANALYSIS, DALITZ PLOT)  
 -DAMA ('MODEL, DUAL RESONANCE' AND 'ANALYTIC PROPERTIES')  
 \*DAMAGE (RADIATION, DAMAGE)  
 -DAMPING (SEE 'ENERGY LOSS' OR 'BEAM DAMPING')  
 -DASHEN-FUBINI-GELL-MANN (SEE 'SUM RULE', ADLER-DASHEN-GELL-MANN-FUBINI)  
 \*DASP (AT DORIS; 'MAGNETIC DETECTOR, DASP')  
 -DATA ANALYSIS (SEE 'STATISTICAL ANALYSIS' OR 'MULTIDIMENSIONAL ANALYSIS' OR 'PARTIAL-WAVE ANALYSIS' OR 'DATA COMPIRATION' OR 'DATA ANALYSIS METHOD')  
 DATA ANALYSIS METHOD (RESTRICTED USE)  
 -DATA COLLECTION (SEE 'DATA COMPIRATION')  
 DATA COMPIRATION  
 -DATA HANDLING (SEE 'COMPUTER')  
 -DATA PRESENTATION (SEE 'INTERPRETATION OF EXPERIMENTS' OR 'DATA ANALYSIS METHOD')  
 -DATA PROCESSING (SEE 'COMPUTER')  
 \*DE SITTER ('GROUP THEORY, DE SITTER' OR 'ALGEBRA, DE SITTER')  
 DECAY  
 -DECAY CROSS SECTION (DECAY)  
 DECAY MODES (RESTRICTED TO CASES WHERE NUMERICAL VALUES ARE GIVEN, OTHERWISE USE 'DECAY')  
 -DECAY RATES (USE 'DECAY MODES')  
 -DECAY WIDTH ('PARTICLE, WIDTH' AND PROBABLY 'PARTICLE, BRANCHING RATIO')  
 \*DECISION (ONLY USED AS 'FAST LOGIC, DECISION')  
 \*DECK ('EFFECT, DECK')  
 -DECK MODEL (SEE 'EFFECT, DECK')  
 \*DEEP INELASTIC SCATTERING (ALSO 'MODEL, DEEP INELASTIC SCATTERING')  
 -DEFORMABLE SPHERE MODEL (MODEL, PARTICLE)  
 -DEFORMED NUCLEUS (NUCLEAR PROPERTIES)  
 \*DELAY LINE (PROPORTIONAL CHAMBER, DELAY LINE)  
 \*DELBRUECK (SCATTERING, DELBRUECK)  
 \*DELTA ('NUCLEON RESONANCE, DELTA' (WITH I=3/2))  
 -DELTA(I)=... (SELECTION RULE, ISCPIN)  
 -DELTA(S)=... ('SELECTION RULE, STRANGENESS', SEE ALSO 'CURRENT, STRANGENESS CHANGING')  
 DELTA(1236)  
 DELTA(1236)+  
 DELTA(1236)++  
 DELTA(1236)-  
 DELTA(1236)--  
 DELTA(1236)0  
 DELTA(1650)  
 DELTA(1670)  
 DELTA(1890)  
 DELTA(1910)  
 DELTA(1950)  
 DELTA(2420)  
 DELTA(2850)  
 DELTA(3230)  
 -DELTA(962) (DELTA(970))  
 DELTA(970)  
 DENSITY  
 \*DENSITY MATRIX (GENERALLY 'SPIN, DENSITY MATRIX')  
 -DENSITY MODEL (MODEL, DUAL RESONANCE)  
 DEPENDENCE (RESTRICTED USE)  
 \*DEPOLARIZATION (POLARIZATION, DEPOLARIZATION)  
 -DESER-GILBERT-SUDARSHAN (SEE 'SPECTRAL REPRESENTATION')  
 \*DESY ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*DESY STJR (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 -DETECTION ('COUNTERS AND DETECTORS' OR 'MEASUREMENT' OR 'PARTICLE IDENTIFICATION')  
 -DETECTOR (USE MORE SPECIFIC KEYWORDS)  
 -DEUTERIUM (USE 'DEUTERON')  
 DEUTERON (ALSO USED FOR DEUTERIUM NUCLEUS)  
 DEUTERON DEUTERON  
 DEUTERON INTERMEDIATE BOSON  
 DEUTERON LIGHT NUCLEUS  
 -DEUTERON MODEL (MODEL, DEUTERON)  
 DEUTERON NUCLEUS  
 DEUTERON QUARK  
 -DIAGONALIZATION  
 DIFFERENTIAL CROSS SECTION (FOR THE INTEGRATED DIFFERENTIAL CROSS SECTION OF A CHANNEL, USE 'CHANNEL CROSS SECTION')  
 DIFFRACTION  
 -DIFFRACTION DISSOCIATION (DIFFRACTION, DISSOCIATION)

-DIFFRACTION MODEL ('MODEL, DIFFRACTION' OR 'EXPERIMENTAL, 'INTERPRETATION OF EXPERIMENTS, DIFFRACTION')  
 -DIFFRACTION SCATTERING (DIFFRACTION)  
 -DIFFRACTION SCATTERING MODEL ('MODEL, DIFFRACTION' OR 'EXPERIMENTAL, 'INTERPRETATION OF EXPERIMENTS, DIFFRACTION')  
 -DIFFRACTIVE EXCITATION (MODEL, DIFFRACTION)  
 -DIFFRACTIVE PRODUCTION (DIFFRACTION, PRODUCTION)  
 DIFFUSION  
 -DIFFUSION CHAMBER (CLOUD CHAMBER)  
 DIGITAL LOGIC ('DIGITAL LOGIC, READOUT' OR 'DIGITAL LOGIC, INTERFACE')  
 -DIGITAL-ANALOG CONVERTER (SEE 'ANALOG CIRCUIT')  
 -DIGITAL-DIGITAL CIRCUIT (DIGITAL LOGIC)  
 -DIKAON (SEE, E.G., 'FINAL STATE, (2K)')  
 -DILATATION (USE 'SYMMETRY, DILATION')  
 \*DILATION (SYMMETRY, DILATION)  
 -DILATION (USE 'SYMMETRY, DILATION')  
 \*DILEPTON (FINAL STATE, DILEPTON)  
 -DIMENSIONAL ANALYSIS (IN THEORY: SEE 'HIGH ENERGY BEHAVIOR')  
 \*DIMUON (FINAL STATE, DIMUON)  
 \*DIP (DIFFERENTIAL CROSS SECTION, DIP)  
 -DIP MECHANISM (NOT USED)  
 \*DIPION  
 -DIPOLAR (SEE 'FORM FACTOR')  
 -DIPOLE MAGNET (SEE 'BENDING MAGNET')  
 \*DIQUARK (USED SINGLY)  
 \*DIRAC (FIELD EQUATIONS, DIRAC)  
 -DIRAC PARTICLE ('FERMION', SEE ALSO 'FIELD EQUATIONS' OR 'ELECTROMAGNETIC, RADIATION')  
 \*DIRECT PRODUCTION  
 -DIRECT REACTION (SEE 'NUCLEAR REACTION')  
 -DISCHARGE CHAMBER (SPARK CHAMBER)  
 -DISCRIMINATOR (ANALOG-TU-DIGITAL CONVERTER)  
 \*DISPERSION  
 DISPERSION RELATIONS  
 -DISPERSION THEORY (DISPERSION RELATIONS)  
 -DISPLAY (FREQUENTLY: PULSE-HEIGHT ANALYZER)  
 \*DISSOCIATION (DIFFRACTION, DISSOCIATION)  
 \*DISTORTED WAVE BORN (APPRXIMATION, DISTORTED WAVE BORN)  
 \*DISTORTED WAVE IMPULSE (APPRXIMATION, DISTORTED WAVE IMPULSE)  
 -DISTRIBUTION (IN EXPERIMENTAL PAPERS SEE 'SPECTRAL' OR 'ANGULAR DISTRIBUTION' OR 'ENERGY SPECTRUM' OR 'MASS SPECTRUM')  
 -DISTRIBUTION FUNCTION (NOT USED)  
 DOSIMETRY  
 -DOUBLE ABSORPTION (USE 'ABSORPTION' AND 'FINAL-STATE INTERACTION')  
 -DOUBLE CAPTURE (USE 'CAPTURE, MULTIPLE')  
 -DOUBLE CHARGE EXCHANGE (USE 'CHARGE EXCHANGE, MULTIPLE')  
 -DOUBLE EXCHANGE (SEE 'REGGE POLES, MULTI-REGGE' OR 'RADIATIVE CORRECTION' OR 'FINAL-STATE INTERACTION' OR 'CHARGE EXCHANGE, MULTIPLE')  
 -DOUBLE EXCITATION (SEE 'EXCITED STATE')  
 -DOUBLE PAIR PRODUCTION (PAIR PRODUCTION, MULTIPLE PRODUCTION)  
 -DOUBLE PERIPHERAL (MODEL, PERIPHERAL)  
 -DOUBLE REGGE EXCHANGE (REGGE POLES, MULTI-REGGE)  
 -DOUBLE REGGE POLE (REGGE POLES, MULTI-REGGE)  
 -DOUBLE SCATTERING (SEE 'EXCHANGE' OR 'MULTIPLE SCATTERING')  
 -DOUBLE SPECTRAL FUNCTION (MANDELSTAM REPRESENTATION)  
 -DOUBLE-ARM SPECTROMETER (SEE 'MAGNETIC SPECTROMETER')  
 -DOUBLET (POSSIBLY 'MASS DIFFERENCE')  
 -DRELL EFFECT (USE 'PI+ PI-, PHOTOPRODUCTION' AND 'EXCHANGE, ONE-MESON')  
 -DRELL RATIO (USE 'ELECTRON POSITRON, ANNIHILATION' AND 'TOTAL CROSS SECTION, RATIO')  
 \*DRELL-HEARN-GERASIMOV (SUM RULE, DRELL-HEARN-GERASIMOV)  
 -DRELL-HIIDA-DECK MODEL (USE 'EFFECT, DECK')  
 -DRELL-LEVY-YAN (USE 'MODEL, PARTON')  
 \*DRELL-YAN ('MODEL, PARTON' AND 'MODEL, DRELL-YAN')  
 \*DRELL-YAN-WEST (MODEL, DRELL-YAN-WEST)  
 -DRESSED PARTICLE (SEE 'FIELD THEORY, PROPAGATOR' AND 'RENORMALIZATION')  
 DRIFT CHAMBER  
 \*DROPLET (MODEL, DROPLET)  
 -DUAL ABSORPTIVE MODEL (MODEL, ABSORPTION)  
 -DUAL AMPLITUDE WITH MANDELSTAM ANALYTICITY ('MODEL, DUAL RESONANCE' AND 'ANALYTIC PROPERTIES')

D -DUAL DIFFRACTION ('DIFFRACTION' AND 'DUALITY')  
-DUAL FIELD THEORY (SEE ALSO 'FIELD THEORY,  
    DUALITY')  
-\*DUAL RESONANCE (MODEL, DUAL RESONANCE)  
-DUAL-LOOP MODEL (DUAL FIELD THEORY,  
    HIGHER-ORDER)  
-DUALITY (USUALLY WITHOUT 'REGGE POLES')  
-\*DUBNA CYCL (ONLY FOR EXPERIMENTAL RESULTS  
    GAINED THERE)  
-\*DUBNA PS (ONLY FOR EXPERIMENTAL RESULTS GAINED  
    THERE)

\*DUERR-PILKUHN (MODEL, DUERR-PILKUHN)  
-DUFFIN-KEMMER (FIELD EQUATIONS)  
-DUFFIN-KEMMER-PETIAU (FIELD EQUATIONS)  
-CWBA (APPROXIMATION, DISTORTED WAVE BORN)  
-DYNAMIC GROUP (GROUP THEORY)  
-DYNAMICAL (NOT USED)  
-DYNAMICS (NOT USED)  
-DYSON REPRESENTATION (SPECTRAL REPRESENTATION)  
DYSPROSIUM  
DO

E114221  
 -ECONOMY (SEE 'COSTS')  
 -EDDY CURRENT (SEE 'MAGNETIC FIELD' AND POSSIBLY 'CORRECTION')  
 EFFECT (RESTRICTED USE)  
 \*EFFECTIVE LAGRANGIANS ('CURRENT ALGEBRA, EFFECTIVE LAGRANGIANS', OR 'FIELD THEORY, EFFECTIVE LAGRANGIANS')  
 -EFFECTIVE MASS (SEE 'MASS SPECTRUM')  
 \*EFFECTIVE POTENTIAL (APPROXIMATION, EFFECTIVE POTENTIAL)  
 \*EFFECTIVE RANGE (APPROXIMATION, EFFECTIVE RANGE)  
 -EIGENSTATE (SEE 'ENERGY EIGENSTATE')  
 -EIGHTFOLD WAY (SYMMETRY, SU(3))  
 \*EIKONAL ('APPROXIMATION, EIKONAL' OR 'REGGE CUT')  
 EINSTEINIUM  
 EJECTION  
 -ELASTIC CROSS SECTION (ELASTIC SCATTERING)  
 ELASTIC SCATTERING  
 -ELASTIC TOTAL CROSS SECTION (USE 'ELASTIC SCATTERING, CHANNEL CROSS SECTION')  
 -ELASTICITY (ELASTIC SCATTERING, CHANNEL CROSS SECTION)  
 \*ELECTRIC  
 ELECTRIC FIELD  
 ELECTRIC MOMENT  
 ELECTRICAL ENGINEERING  
 ELECTRICITY  
 ELECTROFISSION (FISSION DUE TO ELECTRONS OR MUONS)  
 \*ELECTROMAGNETIC  
 \*ELECTROMAGNETIC COMPONENT (COSMIC RADIATION, ELECTROMAGNETIC COMPONENT)  
 \*ELECTROMAGNETIC DECAY (SEE ALSO 'RADIATIVE DECAY')  
 ELECTROMAGNETIC FIELD  
 -ELECTROMAGNETIC FORM FACTOR (USE 'FORM FACTOR')  
 ELECTROMAGNETIC INTERACTION (ALSO: 'MODEL, ELECTROMAGNETIC INTERACTION')  
 -ELECTROMAGNETIC MIXING (INTERFERENCE, ELECTROMAGNETIC (RESTRICTED USE))  
 ELECTRON (USE ALSO WHEN CHARGE IS IRRELEVANT)  
 ELECTRON ANTI-K0  
 ELECTRON ANTI-N  
 ELECTRON ANTI-P  
 ELECTRON ANTIBARYON  
 ELECTRON ANTIHYPERON  
 ELECTRON ANTILAMBDA  
 ELECTRON ANTINUCLEON  
 ELECTRON ANTISIGMA  
 ELECTRON ANTIXI  
 ELECTRON BARYON  
 ELECTRON BARYON RESONANCE  
 ELECTRON BOSON  
 -ELECTRON COOLING (SEE 'BEAM DAMPING')  
 ELECTRON DEUTERON  
 ELECTRON ELECTRON (USE ALSO WHEN CHARGE IS IRRELEVANT)  
 ELECTRON HADRON  
 ELECTRON HYPERON  
 ELECTRON INTERMEDIATE BOSON  
 ELECTRON K  
 ELECTRON K+  
 ELECTRON K-  
 ELECTRON KO  
 ELECTRON LAMBDA  
 ELECTRON LIGHT NUCLEUS  
 ELECTRON MESON  
 ELECTRON MESON RESONANCE  
 ELECTRON MUON  
 ELECTRON MUON+  
 ELECTRON MUON-  
 ELECTRON N  
 -ELECTRON NEUTRINO (FOR THE INTERACTION USE 'NEUTRINO-ELECTRON'; FOR THE PARTICLE USE 'NEUTRINO/E')  
 ELECTRON NUCLEON  
 ELECTRON NUCLEUS  
 ELECTRON OMEGA-  
 ELECTRON P  
 ELECTRON PI  
 ELECTRON PI+  
 ELECTRON PI-  
 ELECTRON PIO  
 ELECTRON POSITRON  
 ELECTRON QUARK  
 \*ELECTRON RING ('ACCELERATOR, ELECTRON RING' (NOT COUPLED WITH 'ION' OR 'HEAVY ION'))  
 ELECTRON SIGMA  
 ELECTRON SIGMA+  
 ELECTRON SIGMA-

ELECTRON SIGMAO  
 -ELECTRON SPECTROMETER (SEE 'MAGNETIC SPECTROMETER')  
 ELECTRON SYNCHROTRON  
 ELECTRON VECTOR MESON  
 ELECTRON XI  
 ELECTRON XII  
 ELECTRON XIO  
 -ELECTRONICS (USE MORE SPECIFIC KEYWORDS)  
 ELECTROPRODUCTION (NORMALLY USED WHEN PARTICLES ARE PRODUCED BY ELECTRONS OR MUONS; FOR  $q^2=0$  SEE 'PHOTOPRODUCTION')  
 \*ELECTROSTATIC  
 -ELECTROSTATIC ACCELERATOR (ACCELERATOR, ELECTROSTATIC)  
 -ELECTROSTATIC SEPARATOR (USE 'PARTICLE SEPARATOR')  
 -ELEMENTARY LENGTH (SEE 'FUNDAMENTAL CONSTANT, LENGTH')  
 ELEMENTS  
 EMISSION  
 -EMULSION CHAMBER (USE 'NUCLEAR EMULSION' AND POSSIBLY 'TOTAL-ABSORPTION COUNTER')  
 -ENCODER (DIGITAL LOGIC)  
 ENERGY  
 ENERGY DEPENDENCE  
 \*ENERGY EIGENSTATE ('QUANTUM MECHANICS, ENERGY EIGENSTATE' OR 'FIELD THEORY, ENERGY EIGENSTATE' OR 'QUANTUM ELECTRODYNAMICS, ENERGY EIGENSTATE'). NOT USED FOR ENERGY LEVELS OR EXCITED STATES.)  
 ENERGY LEVELS  
 ENERGY LOSS  
 \*ENERGY RESOLUTION (COUNTERS AND DETECTORS, ENERGY RESOLUTION)  
 ENERGY SPECTRUM  
 -ENERGY SPREAD (SEE 'ENERGY SPECTRUM')  
 \*ENERGY-MOMENTUM (TENSOR, ENERGY-MOMENTUM)  
 -ENERGY-MANGE RELATION (ENERGY LOSS)  
 \*ENHANCEMENT ('TOTAL CROSS SECTION, ENHANCEMENT', 'DIFFERENTIAL CROSS SECTION, ENHANCEMENT', 'CROSS SECTION, ENHANCEMENT')  
 EPSILON(700)  
 -EQUAL-TIME COMMUTATOR ('CURRENT ALGEBRA, COMMUTATION RELATIONS' OR 'FIELD THEORY, COMMUTATION RELATIONS')  
 -EQUILIBRIUM (SEE 'STATISTICAL MECHANICS' OR 'THERMODYNAMICS')  
 \*EQUIVALENT PHOTON (APPROXIMATION, EQUIVALENT PHOTON)  
 ERBIUM  
 \*EREVAN ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*ERICSON FLUCTUATIONS (STATISTICS, ERICSON FLUCTUATIONS)  
 -ETA(ETA) MIXING (INTERFERENCE, ETA(549)-ETA(958))  
 \*ETA(C) (POSTULATED PARTICLE, ETA(C))  
 -ETA(1070) (SEE 'S\*(1000)')  
 ETA(549)  
 \*ETA(549)-ETA(958)  
 -ETA(700-1000) (EPSILON(700))  
 ETA(958)  
 EUROPium  
 -EVAPORATION MODEL (MULTIPLE PRODUCTION)  
 -EVENT SELECTOR (SEE 'MICROPROCESSOR, PREPROCESSING')  
 EXCHANGE  
 \*EXCHANGE DEGENERACY (USED IN CONNECTION WITH REGGE POLOLOGY)  
 -EXCHANGE INTERFERENCE (EXCHANGE, INTERFERENCE)  
 -EXCHANGE MODEL (EXCHANGE)  
 -EXCITATION (SEE 'EXCITED STATE' OR 'EXCITED NUCLEUS')  
 EXCITED NUCLEUS  
 EXCITED STATE  
 \*EXCLUSIVE REACTION (WITH PARTICLES, E.G. 'ELECTRON P, EXCLUSIVE REACTION'; IF NOT POSSIBLE, 'MODEL, EXCLUSIVE REACTION')  
 \*EXOTIC (COMBINATIONS USED: 'RESONANCE, EXOTIC', 'MESON RESONANCE, EXOTIC', 'BARYON RESONANCE, EXOTIC', 'ATOM, EXOTIC')  
 EXPANSION 1/N  
 \*EXPERIMENTAL EQUIPMENT  
 \*EXPERIMENTAL METHODS  
 \*EXPERIMENTAL RESULTS  
 \*EXTENDED PARTICLE (MODEL, EXTENDED PARTICLE)  
 \*EXTENSIVE (SHOWERS, EXTENSIVE)  
 \*EXTERNAL (SYMMETRY, EXTERNAL)  
 \*EXTERNAL FIELD ('FIELD THEORY, EXTERNAL FIELD' (RESTRICTED USE))

F F  
\*F MESON DOMINANCE (MODEL, F MESON DOMINANCE)  
F(1260)  
F\*  
F\*\*  
-F/D RATIO (COUPLING CONSTANT, D/F RATIO)  
F'(1514)  
-FABBRI PLOT (KINETICS)  
\*FACTORIZATION  
-FADEEV EQUATIONS (MANY-BODY PROBLEM)  
\*FANIN (FAST LOGIC, FANIN)  
\*FANOUT (FAST LOGIC, FANOUT)  
FAST LOGIC ('FAST LOGIC, DECISION' OR 'FAST LOGIC, TIME-OF-FLIGHT' OR 'FAST LOGIC, COINCIDENCE' OR 'FAST LOGIC, FANIN' OR 'FAST LOGIC, FANOUT')  
FEEDBACK (USED ONLY IN CONNECTION WITH ACCELERATORS. IN OTHER CASES SEE 'COUPLING')  
-FERMI COUPLING (USE 'WEAK INTERACTION, CURRENT-CURRENT')  
\*FERMI GAS (MODEL, FERMI GAS)  
-FERMI INTERACTION (SEE 'FERMION')  
-FERMI MOTION CORRECTION (USE 'NUCLEAR PHYSICS, CORRECTION')  
-FERMI STATISTICS (FERMION, STATISTICS)  
\*FERMI-YANG (MODEL, FERMI-YANG)  
FERMION (ALSO 'MODEL, FERMION' AND 'STATISTICS' FOR FERMION MODEL)  
FERMION ANTI-K  
FERMION ANTI-KO  
FERMION ANTI-N  
FERMION ANTI-P  
FERMION ANTIBARYON  
-FERMION ANTIFERMION (SEE 'ANTIFERMION FERMION')  
FERMION ANTIHYPERON  
FERMION ANTILAMBDA  
FERMION ANTINEUTRINO  
FERMION ANTINUCLEON  
FERMION ANTISIGMA  
FERMION ANTIXI  
FERMION BARYON  
FERMION BARYON RESONANCE  
FERMION BOSON  
FERMION DEUTERON  
FERMION ELECTRON  
FERMION FERMION  
FERMION HADRON  
FERMION HYPERON  
FERMION INTERMEDIATE BOSON  
FERMION K  
FERMION K+  
FERMION K-  
FERMION KO  
FERMION LAMBDA  
FERMION LIGHT NUCLEUS  
FERMION MESON  
FERMION MESON RESONANCE  
-FERMION MODEL ('STATISTICS' AND 'MODEL, FERMION')  
FERMION MUON  
FERMION MUON+  
FERMION MUON-  
FERMION N  
FERMION NEUTRINO  
FERMION NUCLEON  
FERMION NUCLEUS  
FERMION OMEGA-  
FERMION P  
FERMION PI  
FERMION PI+  
FERMION PI-  
FERMION PIO  
FERMION POSITRON  
FERMION QUARK  
FERMION SIGMA  
FERMION SIGMA+  
FERMION SIGMA-  
FERMION SIGMA0  
FERMION VECTOR MESON  
FERMION XI  
FERMION XI-  
FERMION XIO  
FERMUM  
-FESR (SUM RULE, FINITE ENERGY)  
\*FEYNMAN (SCALING, FEYNMAN)  
-FEYNMAN FLUID (USE 'SCALING, FEYNMAN' OR 'MODEL, FLUID')  
-FEYNMAN GAS (USE 'SCALING, FEYNMAN' OR 'MODEL, GAS')  
-FEYNMAN GAUGE (GAUGE FIELD THEORY)  
FEYNMAN GRAPH (RESTRICTED USE)

-FEYNMAN INTEGRAL (USE 'FEYNMAN GRAPH')  
-FEYNMAN PATH (SEE 'FIELD THEORY, PATH INTEGRAL' OR 'PERTURBATION THEORY, PATH INTEGRAL')  
-FEYNMAN RULE (SEE 'FEYNMAN GRAPH' OR 'PERTURBATION THEORY')  
-FEYNMAN-KISSINGER-RAVDAL MODEL (QUARK)  
-FFAG ('SYNCHROTRON' OR 'CYCLOTRON')  
\*FIBRE BUNDLE (FIELD THEORY, FIBRE BUNDLE)  
FIELD EQUATIONS  
FIELD THEORETICAL MODEL  
FIELD THEORY (SEE ALSO 'GAUGE FIELD THEORY' OR 'FIELD THEORETICAL MODEL' OR 'UNIFIED FIELD THEORY' OR 'DUAL FIELD THEORY' OR 'REGGEON FIELD THEORY')  
-FIERZ CROSSING SYMMETRY (MODEL, FOUR-FERMION INTERACTION)  
FINAL STATE (RESTRICTED USE, EXAMPLES: 'FINAL STATE, (P 2PI)'; 'FINAL STATE, DIMUON')  
FINAL-STATE INTERACTION  
\*FINE STRUCTURE (ATOMIC PHYSICS, FINE STRUCTURE)  
\*FINITE ENERGY (SUM RULE, FINITE ENERGY)  
\*FINITE MASS (SUM RULE, FINITE MASS)  
\*FINITE MOMENTUM  
\*FIREBALL (MODEL, FIREBALL)  
FISSION  
-FIT ('INTERPRETATION OF EXPERIMENTS, ...' OR 'STATISTICAL ANALYSIS, ...'). THESE TERMS ARE SPECIFIED BY THE ADDITIVES. FOR NEW METHODS 'DATA ANALYSIS METHOD' IS USED)  
-FIXED POINT (SEE 'RENORMALIZATION GROUP' OR 'RENORMALIZATION GROUP, CALLAN-SYMANZIK EQUATIONS')  
\*FIXED POLE (MODEL, FIXED POLE)  
\*FIXED-ANGLE  
-FIXED-T DISPERSION RELATIONS (DISPERSION RELATIONS)  
\*FLASH TUBE (SPARK CHAMBER, FLASH TUBE)  
\*FLAVOR (QUARK, FLAVOR)  
\*FLUID (ONLY USE FOR 'MODEL, FLUID'. OTHERWISE USE 'LIQUID')  
-FLUID ANALOGY (USE 'MODEL, FLUID')  
FLUORINE  
FLUX  
-FNAL ('PROTON SYNCHROTRON'; FOR EXPERIMENTAL RESULTS SEE 'BATAVIA PS')  
\*FOLDY-WOUTHUYSEN (TRANSFORMATION, FOLDY-WOUTHUYSEN)  
\*FORBUSH (COSMIC RADIATION, FORBUSH)  
FORCES  
FORM FACTOR (IF APPROPRIATE, SPECIFIERS ARE ADDED (EXAMPLE: 'FORM FACTOR, MAGNETIC'); NO SPECIFIER IS USED FOR ELECTROMAGNETIC FORM FACTORS)  
\*FORMULA (SEE ALSO 'MASS FORMULA')  
FORWARD SCATTERING (USED ONLY FOR ZERO-DEGREE SCATTERING, OTHERWISE SEE '..., SMALL-ANGLE' OR '..., WIDE-ANGLE')  
-FORWARD-BACKWARD SYMMETRY (USE 'ANGULAR DISTRIBUTION')  
\*FOUR-COMPONENT NEUTRINO (MODEL, FOUR-COMPONENT NEUTRINO)  
\*FOUR-FERMION INTERACTION (MODEL, FOUR-FERMION INTERACTION)  
FOUR-PI-DETECTOR (RESTRICTED USE, FREQUENTLY USED FOR COLLIDING-BEAM DETECTORS)  
\*FRAGMENTATION ('BEAM, FRAGMENTATION' OR 'TARGET, FRAGMENTATION' OR, MORE GENERAL, 'MULTIPLE PRODUCTION, FRAGMENTATION')  
FRANCIM  
\*FRASCATI ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
\*FRASCATI STUR (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
-FREDHOLM OPERATOR (NOT USED)  
\*FREON  
-FREQUENCY GENERATION (SEE 'MICROWAVES')  
-FREQUENCY MEASUREMENT (SEE 'MICROWAVES')  
\*FRIEDMAN (MODEL, FRIEDMAN)  
-FRITZSCH-HELL-MANN (LIGHT CONE BEHAVIOR)  
\*FROISSART BOUND (HIGH ENERGY BEHAVIOR, FROISSART BOUND)  
\*FROISSART-GRIBOV (PARTIAL WAVE, FROISSART-GRIBOV)  
\*FUBINI-FURLAN (MODEL, FUBINI-FURLAN)  
FUNCTIONAL ANALYSIS  
FUNDAMENTAL CONSTANT  
-FUNDAMENTAL LENGTH (FUNDAMENTAL CONSTANT, LENGTH)  
FUSION  
-FI MESON RESONANCE (PI/RHO(1540))  
-F1(1540) (PI/RHO(1540))

\*G PARITY (QUANTUM NUMBER, G PARITY)  
G(1680)  
-G-2 (MAGNETIC MOMENT)  
GADOLINIUM  
-GALILEI GROUP (SEE 'GROUP THEORY')  
GALLIUM  
-GAMMA MONOCHROMATOR (PHOTON, MONOCHROMATIC BEAM)  
-GAMMA SPECTROMETER (TOTAL-ABSORPTION COUNTER)  
GAS (SEE ALSO 'MODEL, GAS')  
-GAS ANALOG MODEL (USE 'MODEL, GAS')  
-GASEOUS SCINTILLATORS (USE 'SCINTILLATION COUNTER, GAS')  
\*GATE (LINEAR GATE: 'ANALOG CIRCUIT', LOGIC GATE: 'DIGITAL LOGIC, GATE')  
\*GAUGE ('INVARIANCE, GAUGE' OR 'TRANSFORMATION, GAUGE'; SEE ALSO 'GAUGE FIELD THEORY')  
GAUGE FIELD THEORY  
\*GEEL LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
GEIGER-MUELLER COUNTER  
\*GELL-MANN-LOW (RENORMALIZATION GROUP, GELL-MANN-LOW)  
\*GELL-MANN-JAKES-RENNER ('MODEL, GELL-MANN-OAKES-RENNER')  
\*GELL-MANN-OKUBO ('MODEL, GELL-MANN-OKUBO' OR 'MASS FORMULA, GELL-MANN-OKUBO')  
-GELL-MANN-SHARP-WAGNER (COUPLING, PI-RHO(765)-OMEGA(784))  
\*GELL-MANN-ZWEIG (QUARK, GELL-MANN-ZWEIG)  
\*GENERAL (RELATIVITY THEORY, GENERAL)  
-GENERALIZED VECTOR DOMINANCE (MODEL, VECTOR DOMINANCE)  
\*GEOMETRICAL (SCALING, GEOMETRICAL)  
\*GEORGI-Glashow (MODEL, GEORGI-GLAshow)

GERMANIUM

-GERMANIUM DETECTOR (SEE 'SOLID-STATE COUNTER')  
-GERMANIUM-LITHIUM COUNTER (SOLID-STATE COUNTER)  
-GIANT RESONANCE (EXCITED NUCLEUS, COLLECTIVE PHENOMENA)  
\*GLASGOW LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
\*GLASHOW-ILIOPOULOS-MAIANI (MODEL, GLASHOW-ILIOPOULOS-MAIANI)  
GLASS  
\*GLAUBER (MODEL, GLAUBER)  
-GLAUBER-MARGULIS MODEL (MODEL, GLAUBER)  
\*GLUON (MODEL, GLUON)  
GOLD  
-GOELBERGER-TREIMAN RELATION ('MODEL, PCAC' AND 'PI, DECAY')  
-GOLDSTONE BOSON (FIELD THEORY, GOLDSTONE THEOREM)  
-GOLDSTONE MODEL (USE 'SYMMETRY, SPONTANEOUSLY BROKEN')  
\*GOLDSTONE THEOREM (FIELD THEORY, GOLDSTONE THEOREM)  
\*GRASSMANN (ALGEBRA, GRASSMANN)  
GRAVITATION  
-GRAVITATIONAL RADIATION (GRAVITATION, RADIATION)  
-GRAVITATIONAL WAVES (GRAVITATION, RADIATION)  
\*GRAVITON (POSTULATED PARTICLE, GRAVITON)  
-GREEN FUNCTION  
\*GRIBOV (MODEL, GRIBOV)  
-GRIBOV-POMERANCHUK (PARTIAL WAVE, ANALYTIC PROPERTIES)  
GROUP THEORY  
-GUPTA-BLEULER (QUANTUM ELECTRODYNAMICS)

H H(2050)  
HADRON  
HADRON ANTI-K  
HADRON ANTI-KO  
HADRON ANTI-N  
HADRON ANTI-P  
HADRON ANTIBARYON  
HADRON ANTIHYPERON  
HADRON ANTILAMBDA  
HADRON ANTINUCLEON  
HADRON ANTISIGMA  
HADRON ANTIXI  
HADRON BARYON  
HADRON BARYON RESONANCE  
HADRON BOSON  
HADRON DEUTERON  
HADRON HADRON  
HADRON HYPERON  
HADRON INTERMEDIATE BOSON  
HADRON K  
HADRON K+  
HADRON K-  
HADRON KO  
HADRON LAMBDA  
HADRON LIGHT NUCLEUS  
HADRON MESON  
HADRON MESON RESONANCE  
-HADRON MJDEL (MODEL, HADREN)  
HADRON N  
HADRON NUCLEON  
HADRON NUCLEUS  
HADRON OMEGA-  
HADRON P  
HADRON PI  
HADRON PI+  
HADRON PI-  
HADRON PIO  
HADRON QUARK  
-HADRON RESONANCE ('MESON RESONANCE' AND  
'BARYON RESONANCE')  
HADRON SIGMA  
HADRON SIGMA+  
HADRON SIGMA-  
HADRON SIGMAO  
HADRON SPECTROSCOPY (NOT USED FOR APPARATUS)  
HADRON VECTOR MESON  
HADRON XI  
HADRON XI-  
HADRON XIO  
\*HADRONIC ATOM  
\*HADRONIC COMPONENT ('COSMIC RADIATION,  
HADRONIC COMPONENT')  
-HADRONIC DECAY (SEE 'NONLEPTONIC DECAY')  
HAFNIUM  
-HAEGEDORF MJDEL (MJDEL, THERMODYNAMICAL)  
-HAEGEDORF-FRAUTSCHI (SEE 'BOOTSTRAP')  
\*HAN-NAMBU (USE 'QUARK, HAN-NAMBU')  
\*HARARI (MJDEL, HARARI)  
-HARARI-FREUND MODEL (SEE 'DUALITY')  
-HARARI-JSNER MODEL (SEE 'DUALITY')  
\*HARD CORE (MODEL, HARD CORE)  
-HARD MESON (CURRENT ALGEBRA, EFFECTIVE  
LAGRANGIANS)  
-HARD PHOTON (RADIATIVE CORRECTION)  
-HARD PION (CURRENT ALGEBRA, EFFECTIVE  
LAGRANGIANS)  
-HARD SCATTERING (SEE 'MODEL, PARTON' JR  
'MODEL, CONSTITUENT INTERCHANGE')  
-HARMONIC OSCILLATOR (MODEL, OSCILLATOR)  
\*HARTREE-FOCK ('APPROXIMATION, HARTREE-FOCK' FOR  
SELF-CONSISTENT CALCULATIONS IN QUANTUM  
MECHANICS)  
HEALTH PHYSICS (SEE ALSO 'NUCLEAR MEDICINE' OR  
'DOSIMETRY')  
HEAT ENGINEERING  
\*HEAVY  
\*HEAVY ION (HEAVY-ION PHYSICS IS INCLUDED WHEN  
PARTICLE ENERGY IS  $\geq 100$  MEV/NUCLEON.  
HEAVY-ION ACCELERATOR TECHNOLOGY IS GENERALLY  
INCLUDED)  
HEAVY LEPTON  
-HEAVY LEPTON ANTINEUTRINO (ANTINEUTRINO/L/)  
-HEAVY LEPTON NEUTRINO (NEUTRINO/L/)  
-HEAVY MESON (SEE 'PSI MESONS')  
-HEAVY WATER (DEUTERON, WATER)  
\*HEISENBERG (FIELD THEORY, HEISENBERG)  
HELICITY  
HELIUM  
-HIDDEN VARIABLES (QUANTUM MECHANICS)  
\*HIGGS (MODEL, HIGGS)  
-HIGGS-KIBBLE (FIELD THEORETICAL MODEL, WEINBERG)  
\*HIGH (MOMENTUM TRANSFER, HIGH)  
HIGH ENERGY BEHAVIOR (ONLY FOR THEORETICAL  
MODELS IN THE ASYMPTOTIC RANGE, ONLY USED  
WHERE CONTENT IS NOT IMPLICITLY CONTAINED IN  
OTHER KEYWORDS.)  
-HIGH SPIN (SPIN, HIGH)  
\*HIGH-Y ANOMALY ('NEUTRINO, INCLUSIVE REACTION',  
'ANTINEUTRINO, INCLUSIVE REACTION' AND  
'INCLUSIVE REACTION, HIGH-Y ANOMALY')  
\*HIGHER-ORDER (RESTRICTED USE, PREFERABLY WITH  
INTERACTIONS, E.G. 'WEAK INTERACTION,  
HIGHER-ORDER' OTHERWISE WITH FIELD THEORY-  
'FIELD THEORY, HIGHER-ORDER', ALSO 'MAGNETIC  
MOMENT, HIGHER-ORDER'(FROM SIXTH ORDER ON.  
NOT USED FOR KO ANTI-KO))  
-HILBERT SPACE (NOT USED)  
HODOSCOPE  
-HODOSCOPE CHAMBER (SEE 'SPARK CHAMBER, FLASH  
TUBE')  
HOLMIUM  
\*HWA (MODEL, HWA)  
-HYBRID MODEL ('MODEL, ABSORPTION' AND 'REGGE  
POLES')  
HYBRID SYSTEM (USED ONLY WHEN 2 OR MORE CHAMBER  
TYPES ARE USED IN ONE DETECTOR; WHEN BUBBLE  
CHAMBERS ARE INVOLVED, ADD 'BUBBLE CHAMBER')  
\*HYDRODYNAMICAL (MODEL, HYDRODYNAMICAL)  
HYDROGEN  
\*HYPERCHARGE ('QUANTUM NUMBER, HYPERCHARGE'.  
SEE ALSO 'STRANGENESS')  
HYPERFINE STRUCTURE  
HYPERFRAGMENT  
-HYPERNUCLEUS (HYPERFRAGMENT)  
HYPERON  
HYPERON ANTIHYPERON  
HYPERON BARYON RESONANCE  
HYPERON DEUTERON  
HYPERON HYPERON  
HYPERON INTERMEDIATE BOSON  
HYPERON LIGHT NUCLEUS  
HYPERON NUCLEUS  
HYPERON QUARK  
HYPERON VECTOR MESON  
\*HYPERONIC ATOM

\*IZUKA-JKUBO-ZWEIG (SELECTION RULE,  
IZUKA=JKUBO=ZWEIG)  
\*IMAGE INTENSIFIER  
\*IMPACT PARAMETER (MODEL, IMPACT PARAMETER)  
\*IMPULSE (APPROXIMATION, IMPULSE)  
-IMPURITY (SEE 'ADMIXTURE')  
INCLUSIVE REACTION  
\*INCOHERENT INTERACTION  
\*INCOHERENT PRODUCTION  
\*INDEPENDENT EMISSION (MODEL, INDEPENDENT EMISSION)  
\*INDEPENDENT PARTICLE (MODEL, INDEPENDENT PARTICLE)  
INDIUM  
-INELASTIC SCATTERING (EITHER, E.G., 'ELECTRON P, INTERACTION' OR, E.G., 'ELECTRON P, DEEP INELASTIC SCATTERING')  
\*INFINITE-COMPONENT WAVE EQUATION (CURRENT ALGEBRA, INFINITE-COMPONENT WAVE EQUATION)  
-INFRAPARTICLE (SEE 'FIELD THEORY, INFRARED PROBLEM' OR 'QUANTUM ELECTRODYNAMICS, INFRARED PROBLEM')  
\*INFRARED PROBLEM ('FIELD THEORY, INFRARED PROBLEM' OR 'QUANTUM ELECTRODYNAMICS, INFRARED PROBLEM')  
INJECTION  
INORGANIC COMPOUNDS  
-INSTABILITY (SEE 'BEAM INSTABILITY')  
\*INSTANTON (FIELD THEORY, INSTANTON)  
-INTEGRAL REPRESENTATION (USE 'SPECTRAL REPRESENTATION')  
-INTENSITY (SEE 'YIELD' OR 'FLUX')  
\*INTERACTION  
INTERFACE (ALSO 'DIGITAL LOGIC, INTERFACE' OR 'ANALOG LOGIC, INTERFACE' OR 'COMPUTER, INTERFACE' OR 'INTERFACE, EXPERIMENTAL EQUIPMENT')  
INTERFERENCE  
INTERMEDIATE BOSON (ALSO 'MODEL, INTERMEDIATE BOSON')  
-INTERMEDIATE NUCLEUS (USE 'EXCITED NUCLEUS')

-INTERMEDIATE STATE (SEE 'EXCHANGE' OR 'FINAL STATE' OR 'DECAY, CASCADE')  
\*INTERNAL (SYMMETRY, INTERNAL)  
-INTERNAL CONVERSION (SEE 'PARTICLE SOURCE' OR 'NUCLEAR REACTION')  
-INTERNUCLEAR CASCADE (USE 'NUCLEUS, CASCADE')  
\*INTERPRETATION OF EXPERIMENTS  
\*INTRANUCLEAR CASCADE (MODEL, INTRANUCLEAR CASCADE)  
\*INTRODUCTORY (RESTRICTED USE)  
INVARIANCE  
-INVARIANT PHASE SPACE (MODEL, STATISTICAL)  
IODINE  
ION (SEE ALSO 'HEAVY ION')  
-ION RING ACCELERATOR (ACCELERATOR, ELECTRON RING)  
IONIZATION  
-IONIZATION CALORIMETER ('IONIZATION CHAMBER' AND 'BEAM CALIBRATION'; SEE ALSO 'TOTAL-ABSORPTION COUNTER')  
IONIZATION CHAMBER  
-IONIZATION SPECTROMETER (SEE 'IONIZATION CHAMBER')  
-IPS (MODEL, STATISTICAL)  
IRIDIUM  
IRON  
\*IRON BALL (AT SPEAR; 'MAGNETIC DETECTOR, IRON BALL')  
\*ISING (STATISTICAL MECHANICS, ISING)  
\*ISOBAR ('MODEL, ISOBAR'; FOR THE NUCLEON ISOBAR USE 'NUCLEON RESONANCE')  
-ISOBAR ANALOG RESONANCE (SEE 'NUCLEAR PHYSICS')  
\*ISOCRONOUS (CYCLOTRON, ISOCRONOUS)  
\*ISOSCALAR  
ISOSPIN  
-ISOTOPE (NUCLIDE)  
\*ISOVECTOR  
-ISR ('STORAGE RING, P P'; FOR EXPERIMENTAL RESULTS USE 'CERN STOK')  
J

-J(310C) (USE 'J/PSI(3100)')  
J/PSI(3100)  
-JACOB-SLANSKY (MODEL, MULTIPLE PRODUCTION)  
\*JADE (PROPOSED FOR PETRA; 'MAGNETIC DETECTOR, JADE')  
\*JET (MODEL, JET)  
\*JIN-MARTIN BOUND (HIGH ENERGY BEHAVIOR, JIN-MARTIN BOUND)  
-JOHNSON-BAKER-WILLEY (QUANTUM ELECTRODYNAMICS)  
\*JOHNSON-TREIMAN ('SYMMETRY, JOHNSON-TREIMAN' AND 'SYMMETRY, SU(6)')

\*JOINT DECAY  
\*JONA-LASINIO-NAMBU (MODEL, JONA-LASINIO-NAMBU)  
\*JOSEPHSON (EFFECT, JOSEPHSON)  
-JOST FUNCTION (POTENTIAL SCATTERING)  
-JOST-LEHMANN-DYSON REPRESENTATION (SPECTRAL REPRESENTATION)  
-JWKB (USE 'APPROXIMATION, WKB')  
J

K K  
K ANTI-K  
K ANTI-KO  
K ANTI-N  
K ANTI-P  
K ANTIBARYON  
K ANTILAMBDA  
K ANTINUCLEON  
K ANTISIGMA  
K BARYON  
K BARYON RESONANCE  
K DEUTERON  
K HYPERON  
K INTERMEDIATE BOSON  
K K  
K K+  
K K-  
K KO  
K LAMBDA  
K LIGHT NUCLEUS  
K MESON RESONANCE  
K N  
K NUCLEON  
K NUCLEUS  
K P  
K QUARK  
K SIGMA  
K VECTOR MESON  
-K(1240) (Q REGION)  
-K(1280-1400) (Q REGION)  
K(1420)  
K+  
K+ ANTI-N  
K+ ANTI-P  
K+ ANTIBARYON  
K+ ANTINUCLEON  
K+ BARYON  
K+ BARYON RESONANCE  
K+ DEUTERON  
K+ HYPERON  
K+ INTERMEDIATE BOSON  
K+ K+  
K+ K-  
K+ LAMBDA  
K+ LIGHT NUCLEUS  
K+ MESON RESONANCE  
K+ N  
K+ NUCLEON  
K+ NUCLEUS  
K+ P  
K+ QUARK  
K+ SIGMA  
K+ VECTOR MESON  
-K\*( EXCHANGE (EXCHANGE, K\*(092))  
K\*(1780)  
K\*(892)  
K-  
K- ANTI-N  
K- ANTI-P  
K- ANTIBARYON  
K- ANTINUCLEON  
K- BARYON  
K- BARYON RESONANCE  
K- DEUTERON  
K- HYPERON  
K- INTERMEDIATE BOSON  
K- K-  
K- LAMBDA  
K- LIGHT NUCLEUS  
K- MESON RESONANCE  
K- N  
K- NUCLEON  
K- NUCLEUS  
K- P  
K- QUARK  
K- VECTOR MESON  
-KAELLEN-LEHMANN REPRESENTATION (SPECTRAL  
REPRESENTATION)  
-KAPPA (SEE 'PI K' AND 'PARTIAL-WAVE ANALYSIS')  
\*KEK PS (AT TSUKUBA, JAPAN. ONLY FOR EXPERIMENTAL  
RESULTS GAINED THERE)  
\*KHARKOV LINAC (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
-KHURI REPRESENTATION (MODEL, REGGE POLES)  
-KIBBLE-HIGGS (FIELD THEORETICAL MODEL, WEINBERG)  
-KICKER MAGNET (PULSED MAGNET)  
\*KIKKAWA-SAKITA-VIRASORU (MODEL, KIKKAWA-SAKITA-  
VIRASORU)  
-KINEMATIC SUPERSTRUCTURE (DUALITY)  
KINEMATICS  
-KINK SOLUTION (SEE 'FIELD THEORY, SOLITON')  
\*KLEIN-GORDON (FIELD EQUATIONS, KLEIN-GORDON)  
-KLYSTRON (SEE 'RF SYSTEM')  
\*KNU (SCALING, KNU)  
-KOBA-NIELSEN (MODEL, DUAL RESONANCE)  
-KOBA-NIELSEN-JESEN SCALING (SCALING, KNU)  
-KOGUT-SUSSKIND (USE 'MODEL, PARTON')  
-KROLL-RUDERMAN (FIELD THEORY, LOW-ENERGY  
THEOREM)  
KRYPTON  
-KUTI-WEISSKOPF (SEE 'MODEL, QUARK PARTON' AND  
'SCALING' AND 'DEEP INELASTIC SCATTERING')  
KO  
KO ANTI-N  
KO ANTI-P  
KO ANTIBARYON  
KO ANTINUCLEON  
KO BARYON  
KO BARYON RESONANCE  
KO DEUTERON  
KO INTERMEDIATE BOSON  
KO K+  
KO K-  
KO KO  
KO LAMBDA  
KO LIGHT NUCLEUS  
KO MESON RESONANCE  
KO N  
KO NUCLEON  
KO NUCLEUS  
KO P  
KO QUARK  
KO VECTOR MESON  
KO(L)  
\*KO(L)-KO(S) (MASS DIFFERENCE, KO(L)-KO(S))  
KO(S)

L(1770)  
 \*LADDER (APPROXIMATION, LADDER)  
 -LAGRANGIAN MODEL (FIELD THEORY)  
 -LAMB SHIFT (\*RADIATIVE CORRECTION\* AND \*ATOM, ENERGY LEVELS\*. POSSIBLY ALSO: 'QUANTUM ELECTRODYNAMICS, VALIDITY TEST')  
 LAMBDA  
 LAMBDA ANTILAMBDA  
 LAMBDA BARYON RESONANCE  
 LAMBDA DEUTERON  
 LAMBDA INTERMEDIATE BOSON  
 LAMBDA LAMBDA  
 LAMBDA LIGHT NUCLEUS  
 LAMBDA NUCLEUS  
 LAMBDA QUARK  
 LAMBDA SIGMA  
 LAMBDA VECTOR MESON  
 LAMBDA(1405)  
 LAMBDA(1815)  
 LAMBDA(1830)  
 LAMBDA(2100)  
 LAMBDA(2350)  
 LAMBDA(2585)  
 LAMBDA'(1520)  
 LAMBDA'(1670)  
 LAMBDA''(1690)  
 -LAMITON (SEE 'HEAVY LEPTON' AND 'STRONG INTERACTION')  
 \*LAMP LI'AC (AT LJS ALACMS. ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 -LANDAU MODEL (MODEL, HYDRODYNAMIC)  
 LANTHANUM  
 \*LASER (GENERALLY, 'OPTICS, LASER')  
 \*LATTICE (\*APPROXIMATION, LATTICE\* IN FIELD THEORY. ALSO USED FOR ACCELERATOR LATTICES)  
 -LATTICE FIELD THEORY (SEE 'APPROXIMATION, LATTICE')  
 LAWRENCIUM  
 LEAD  
 -LEAD-GLASS COUNTER (SEE 'TOTAL-ABSORPTION COUNTER')  
 \*LEADING PARTICLE (MULTIPLE PRODUCTION, LEADING PARTICLE)  
 -LEAST-SQUARES ANALYSIS (USE 'STATISTICAL ANALYSIS')  
 LECTURES  
 \*LEF (FIELD THEORETICAL MODEL, LEE)  
 -LEFT-RIGHT SYMMETRY (SEE 'MULTIPLE PRODUCTION, CORRELATION')  
 -LEHMANN ELLIPSE (ANALYTIC PROPERTIES)  
 -LEHMANN-KAELLEN-UMEZAWA (SPECTRAL REPRESENTATION)  
 -LEHMANN-SYMANzik-ZIMMERMANN FORMALISM (FIELD THEORY)  
 \*LENGTH (\*FUNDAMENTAL CONSTANT, LENGTH; SEE ALSO 'SCATTERING LENGTH' OR 'RADIATION LENGTH')  
 \*LEVINGRAU IOFFE CYCL (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*LENINGRAD NUCL INST CYCL (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 LEPTON  
 LEPTON ANTI-K0  
 LEPTON ANTI-N  
 LEPTON ANTI-P  
 LEPTON ANTIBARYON  
 LEPTON ANTHYPERON  
 LEPTON ANTILAMBDA  
 LEPTON ANTILEPTON  
 LEPTON ANTINEUTRINO  
 LEPTON ANTINUCLEON  
 LEPTON ANTSIGMA  
 LEPTON ANTIXI  
 LEPTON BARYON  
 LEPTON BARYON RESONANCE  
 LEPTON BOSON  
 LEPTON DEUTERON  
 LEPTON ELECTRON  
 LEPTON FERMION  
 LEPTON HADRON  
 LEPTON HYPERON  
 LEPTON INTERMEDIATE BOSON  
 LEPTON K  
 LEPTON K+  
 LEPTON K-  
 LEPTON K0  
 LEPTON LAMBDA  
 LEPTON LEPTON  
 LEPTON LIGHT NUCLEUS  
 LEPTON MESON  
 LEPTON MESON RESONANCE

LEPTON MUON  
 LEPTON MUON+  
 LEPTON MUON-  
 LEPTON N  
 LEPTON NEUTRINO  
 LEPTON NUCLEON  
 LEPTON NUCLEUS  
 LEPTON OMEGA-  
 LEPTON P  
 LEPTON PI  
 LEPTON PI+  
 LEPTON PI-  
 LEPTON PIO  
 LEPTON POSITRON  
 LEPTON QUARK  
 LEPTON SIGMA  
 LEPTON SIGMA+  
 LEPTON SIGMA-  
 LEPTON SIGMA0  
 LEPTON VECTOR MESON  
 LEPTON XI  
 LEPTON XI-  
 LEPTON XIO  
 \*LEPTONIC DECAY  
 -LEPTONIC NUMBER (USUALLY 'CONSERVATION LAW, LEPTON'; SEE ALSO 'QUANTUM NUMBER, LEPTON')  
 -LEPTONIC QUARK (LEPTON, QUARK)  
 LEPTOPRODUCTION  
 -LEVEL CONVERTER (DIGITAL LOGIC)  
 -LEXAN (USE 'PLASTICS, TRACK SENSITIVE')  
 \*LIE (\*GROUP THEORY, LIE\* OR 'ALGEBRA, LIE')  
 LIFETIME (USAGE IN ACCORDANCE WITH ROSENFIELD TABLES)  
 -LIGHT CONE ALGEBRA (LIGHT CONE BEHAVIOR)  
 LIGHT CONE BEHAVIOR  
 LIGHT NUCLEUS (UP TO MASS NUMBER 20)  
 LIGHT NUCLEUS INTERMEDIATE BOSON  
 LIGHT NUCLEUS LIGHT NUCLEUS  
 LIGHT NUCLEUS NUCLEUS  
 LIGHT NUCLEUS QUARK  
 -LIMITER (FAST LOGIC)  
 -LIMITING FRAGMENTATION (MODEL, FRAGMENTATION)  
 LINEAR ACCELERATOR  
 -LINEAR AMPLIFIER (ANALOG CIRCUIT)  
 -LINEAR GATE (ANALOG CIRCUIT)  
 \*LINEAR SPACES (FUNCTIONAL ANALYSIS, LINEAR SPACES)  
 -LIPPMANN-SCHWINGER EQUATION (QUANTUM MECHANICS, SCATTERING)  
 -LIPPMANN-SCHWINGER-ZIMMERMANN FORMALISM (AXIOMATIC FIELD THEORY)  
 LIQUID  
 -LIQUID ANALOGY MODEL (USE 'MODEL, FLUID')  
 LIQUID ARGON DETECTOR  
 LITHIUM  
 -LOCALITY (AXIOMATIC FIELD THEORY)  
 -LOCALIZATION (AXIOMATIC FIELD THEORY)  
 -LOCATION DETECTION (SEE 'POSITION SENSITIVE' OR 'TRACK MEASURING')  
 -LOGIC (IF DIGITAL, 'DIGITAL LOGIC', IF IN NANONSECOND RANGE, 'FAST LOGIC')  
 -LOGIC GATE (DIGITAL LOGIC)  
 \*LONG-RANGE (USE ONLY AS 'CORRELATION, LONG-RANGE'. DO NOT USE FOR LONG-RANGE FORCES)  
 \*LONGITUDINAL (RESTRICTED USE, SEE ALSO 'LONGITUDINAL MOMENTUM')  
 -LONGITUDINAL BEAM OSCILLATION (SYNCHROTRON OSCILLATION)  
 LONGITUDINAL MOMENTUM  
 \*LONGITUDINAL PHASE SPACE (MULTIDIMENSIONAL ANALYSIS, LONGITUDINAL PHASE SPACE)  
 -LOOP DIAGRAM (\*FIELD THEORY, HIGHER-ORDER\* OR 'DUAL FIELD THEORY, HIGHER-ORDER')  
 \*LORENTZ (\*GROUP THEORY, LORENTZ\* (RESTRICTED USE) OR 'INVARIANCE, LORENTZ' (RESTRICTED USE) OR 'TRANSFORMATION, LORENTZ')  
 \*LOW (MOMENTUM TRANSFER, LOW)  
 LOW TEMPERATURE  
 \*LOW-ENERGY THEOREM (FIELD THEORY, LOW-ENERGY THEOREM)  
 -LPS ANALYSIS (\*MULTIPLE PRODUCTION, LONGITUDINAL PHASE SPACE\* OR 'MULTIDIMENSIONAL ANALYSIS, LONGITUDINAL PHASE SPACE')  
 -LSZ FORMALISM (FIELD THEORY)  
 LUMINOSITY  
 \*LUND ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 LUTETIUM

M \*M I T LINAC (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
MAGNESIUM  
MAGNET  
\*MAGNETIC (SEE ALSO 'MAGNETIC FIELD' OR 'MAGNETIC  
MOMENT' OR 'POSTULATED PARTICLE, MAGNETIC  
MONOPOLE' OR 'MAGNETIC SPECTROMETER' OR  
'MAGNETIC DETECTOR')  
MAGNETIC DETECTOR (OFTEN USED CONNECTED WITH  
THE NAME OF THE DETECTOR. IN CASE OF  
LARGE-ANGLE DETECTORS SEE ALSO APPROPRIATE  
KEYWORDS FOR CHAMBERS AND ADD 'MAGNETIC  
FIELD'. FOR SMALL-ANGLE DETECTORS SEE ALSO  
'MAGNETIC SPECTROMETER')  
MAGNETIC FIELD (ALSO FOR STORAGE-RING EXPERIMENTS  
WHEN APPLICABLE)  
MAGNETIC MOMENT  
\*MAGNETIC MONOPOLE (POSTULATED PARTICLE,  
MAGNETIC MONOPOLE)  
MAGNETIC SPECTROMETER (SEE ALSO 'MAGNETIC  
DETECTOR')  
\*MAGNETOSTRICTIVE (SPARK CHAMBER,  
MAGNETOSTRICTIVE)  
MANDELSTAM REPRESENTATION  
MANGANESE  
MANUAL  
MANY-BODY PROBLEM  
\*MANY-BOSON (EXCHANGE, MANY-BOSON)  
\*MARK I (AT SPEAR; 'MAGNETIC DETECTOR, MARK I')  
\*MARK II (AT SPEAR; 'MAGNETIC DETECTOR,  
MARK II')  
MASS  
MASS DIFFERENCE  
MASS ENHANCEMENT  
MASS FORMULA  
\*MASS NUMBER  
-MASS RATIO ('MASS, RATIO'. INCLUDES ALSO  
EFFECTIVE-MASS SPECTRA)  
-MASS SPECTROMETER (SEE 'MAGNETIC SPECTROMETER')  
MASS SPECTRUM (RESTRICTED USE)  
-MASS SPLITTING (MASS DIFFERENCE)  
-MASS-ZERO PI-ONS (PI, MASSLESS)  
\*MASSIVE  
\*MASSLESS  
-MATERIALS (SEE MORE SPECIFIC TERMS)  
MATHEMATICAL METHODS  
MATHEMATICS  
MATTER  
-MAXIMUM-LIKELIHOOD METHOD (USE 'STATISTICAL  
ANALYSIS')  
MEASUREMENT  
MECHANICAL ENGINEERING  
MECHANICS  
-MEDICINE (SEE 'HEALTH PHYSICS' OR  
'NUCLEAR MEDICINE')  
-MELLIN TRANSFORMATION (TRANSFORMATION)  
\*MELOSH (TRANSFORMATIJSN, MELOSH)  
-MEMORY (COMPUTER)  
MENDELEVUM  
MERCURY  
\*MESIC ATOM  
-MESIC MOLECULE (MOLECULE, MESIC ATOM)  
MESON (ALSO 'MODEL, MESON')  
MESON ANTI-K  
MESON ANTI-KO  
MESON ANTI-N  
MESON ANTI-P  
MESON ANTIBARYON  
MESON ANTIBARYON  
MESON ANTILAMBDA  
MESON ANTINUCLEON  
MESON ANTISIGMA  
MESON ANTIXI  
MESON BARYON  
MESON BARYON RESONANCE  
MESON BOSON  
MESON DEUTERON  
\*MESON DOMINANCE ('MODEL, MESON DOMINANCE'.  
USED FOR SCALAR, PSEUDOSCALAR AND TENSOR  
MESONS)  
-MESON EXCHANGE (EXCHANGE, MESON)  
MESON HYPERON  
MESON INTERMEDIATE BOSON  
MESON K  
MESON K+  
MESON K-  
MESON KO  
MESON LAMBDA  
MESON LIGHT NUCLEUS  
MESON MESON  
MESON MESON RESONANCE  
MESON N  
MESON NUCLEON  
MESON NUCLEUS

MESON OMEGA-  
MESON P  
MESON PI  
MESON PI+  
MESON PI-  
MESON PIO  
MESON QUARK  
MESON RESONANCE  
MESON RESONANCE ANTI-N  
MESON RESONANCE ANTI-P  
MESON RESONANCE ANTIBARYON  
MESON RESONANCE ANTHYPERON  
MESON RESONANCE ANTILAMBDA  
MESON RESONANCE ANTINUCLEON  
MESON RESONANCE ANTISIGMA  
MESON RESONANCE ANTIXI  
MESON RESONANCE BARYON  
MESON RESONANCE BARYON RESONANCE  
MESON RESONANCE DEUTERON  
-MESON RESONANCE FORMATION (USE 'MESON RESONANCE,  
SCATTERING')  
MESON RESONANCE HYPERON  
MESON RESONANCE LAMBDA  
MESON RESONANCE LIGHT NUCLEUS  
MESON RESONANCE MESON RESONANCE  
MESON RESONANCE N  
MESON RESONANCE NUCLEON  
MESON RESONANCE NUCLEUS  
MESON RESONANCE OMEGA-  
MESON RESONANCE P  
MESON RESONANCE QUARK  
MESON RESONANCE SIGMA  
MESON RESONANCE SIGMA+  
MESON RESONANCE SIGMA-  
MESON RESONANCE SIGMAO  
MESON RESONANCE VECTOR MESON  
MESON XI  
MESON XI-  
MESON XIO  
METAL  
-MICHAELIS DETECTOR (USE 'MINERAL, TRACK SENSITIVE')  
-MICROCAUSALITY (AXIOMATIC FIELD THEORY,  
CAUSALITY)  
-MICROCOMPUTER (SEE 'MICROPROCESSOR')  
MICROPROCESSOR  
-MICROTRON (CYCLOTRON, ELECTRON)  
MICROWAVES  
MINERAL  
\*MISSING-MASS  
-MISSING-MASS SPECTROMETER (MAGNETIC SPECTROMETER)  
-MIXING ('INTERFERENCE' (RESTRICTED USE))  
\*MIXING ANGLE (MULTIPLET, MIXING ANGLE)  
MODEL (VERY RESTRICTED USE WITHOUT SECOND TERM)  
-MODELS OF FIELD THEORY (FIELD THEORETICAL MODEL)  
-MOEBIUS TRANSFORMATION (TRANSFORMATION)  
-MOELLER SCATTERING (USE 'ELECTRON ELECTRON,  
ELASTIC SCATTERING' OR 'POSITRON POSITRON,  
ELASTIC SCATTERING')  
MOLECULAR BIOLOGY  
\*MOLECULE  
MOLYBDENUM  
MOMENT  
MOMENTUM  
MOMENTUM SPECTRUM  
MOMENTUM TRANSFER  
MONITORING (SEE ALSO 'BEAM MONITORING')  
\*MONOCHROMATIC BEAM (PHOTON, MONOCHROMATIC BEAM)  
\*MONTE CARLO (NUMERICAL CALCULATIONS, MONTE CARLO)  
\*MOSCOW ITEF PS (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
\*MOSCOW LINAC (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
\*MOSCOW RI PS (ONLY FOR EXPERIMENTAL RESULTS  
GAINED THERE)  
\*MUELLER (MODEL, MUELLER)  
\*MULTI-REGGE (REGGE POLES, MULTI-REGGE)  
-MULTICHANNEL ANALYZER (SEE 'ANALOG-TO-DIGITAL  
CONVERTER')  
MULTIDIMENSIONAL ANALYSIS  
-MULTILOOP ('FIELD THEORY, HIGHER-ORDER' OR  
'DUAL FIELD THEORY, HIGHER-ORDER')  
\*MULTIMESON (EXCHANGE, MULTIMESON)  
\*MULTIPERIPHERAL (MODEL, MULTIPERIPHERAL)  
\*MULTIPHOTON ('EXCHANGE, MULTIPHOTON' AND  
'PERTURBATION THEORY')

*MULTIPION (EXCHANGE, MULTIPION)	MUON+ INTERMEDIATE BOSON
*MULTIPLE	MUON+ K
MULTIPLE PRODUCTION	MUON+ K+
MULTIPLE SCATTERING	MUON+ K-
MULTIPLLET	MUON+ KO
MULTIPARTICLE	MUON+ LAMBDA
*MULTIPPLY CHARGED	MUON+ LIGHT NUCLEUS
*MULTIPOLE (PARTIAL-WAVE ANALYSIS, MULTIPOLE)	MUON+ MESON
-MULTIPOKERON (USE 'PGMERON')	MUON+ MESON RESONANCE
-MULTIREGGEON (SEE 'REGGE POLES, MULTI-REGGE' OR *EXCHANGE, MULTI-REGGE')	MUON+ MUON+
-MULTIWIRE PROPORTIONAL CHAMBER (USE 'PROPORTIONAL CHAMBER')	MUON+ MUON-
MUON	MUON+ N
MUON ANTI-KO	MUON+ NUCLEON
MUON ANTI-N	MUON+ NUCLEUS
MUON ANTI-P	MUON+ OMEGA-
MUON ANTIBARYON	MUON+ P
MUON ANTIHYPERON	MUON+ PI
MUON ANTILAMBDA	MUON+ PI+
MUON ANTINUCLEON	MUON+ PI-
MUON ANTISIGMA	MUON+ PIO
MUON ANTIXI	MUON+ QUARK
MUON BARYON	MUON+ SIGMA
MUON BARYON RESONANCE	MUON+ SIGMA+
MUON BOSON	MUON+ SIGMA-
MUON DEUTERON	MUON+ SIGMAO
MUON HADRON	MUON+ VECTOR MESON
MUON HYPERON	MUON+ XI
MUON INTERMEDIATE BOSON	MUON+ XI-
MUON K	MUON+ XIO
MUON K+	MUON-
MUON K-	MUON- ANTI-KO
MUON KO	MUON- ANTI-N
MUON LAMBDA	MUON- ANTI-P
MUON LIGHT NUCLEUS	MUON- ANTIBARYON
MUON MESON	MUON- ANTIHYPERON
MUON MESON RESONANCE	MUON- ANTILAMBDA
MUON MUON	MUON- ANTINUCLEON
MUON MUON+	MUON- ANTISIGMA
MUON MUON-	MUON- ANTIXI
MUON N	MUON- BARYON
-MUON NEUTRINO (FOR THE INTERACTION USE 'NEUTRINO'; FOR THE PARTICLE USE 'NEUTRINO/MU+')	MUON- BARYON RESONANCE
MUON NUCLEON	MUON- BOSON
MUON NUCLEUS	MUON- DEUTERON
MUON OMEGA-	MUON- HADRON
MUON P	MUON- HYPERON
MUON PI	MUON- INTERMEDIATE BOSON
MUON PI+	MUON- K
MUON PI-	MUON- K+
MUON PIO	MUON- K-
MUON QUARK	MUON- KO
MUON SIGMA	MUON- LAMBDA
MUON SIGMA+	MUON- LIGHT NUCLEUS
MUON SIGMA-	MUON- MESON
MUON SIGMAO	MUON- MESON RESONANCE
MUON VECTOR MESON	MUON- MUON-
MUON XI	MUON- N
MUON XI-	MUON- NUCLEON
MUON XIO	MUON- NUCLEUS
MUON+	MUON- OMEGA-
MUON+ ANTI-KO	MUON- P
MUON+ ANTI-N	MUON- PI
MUON+ ANTI-P	MUON- PI+
MUON+ ANTIBARYON	MUON- PI-
MUON+ ANTIHYPERON	MUON- PIO
MUON+ ANTILAMBDA	MUON- QUARK
MUON+ ANTINUCLEON	MUON- SIGMA
MUON+ ANTISIGMA	MUON- SIGMA+
MUON+ ANTIXI	MUON- SIGMA-
MUON+ BARYON	MUON- SIGMAO
MUON+ BARYON RESONANCE	MUON- VECTOR MESON
MUON+ BOSON	MUON- XI
MUON+ DEUTERON	MUON- XI-
MUON+ HADRON	MUON- XIO
MUON+ HYPERON	*MUONIC ATOM
	*MUONIUM
	-MUOPRODUCTION (USE 'ELECTROPRODUCTION')
	-MWPC (USE 'PROPORTIONAL CHAMBER')

N N (DENOMINATES NEUTRON; FOR NUCLEON USE  
  'NUCLEON')  
N ANTI-N  
N ANTIHYPERON  
N ANTILAMBDA  
N ANTISIGMA  
N ANTIXI  
N BARYON RESONANCE  
N DEUTERON  
N HYPERON  
N INTERMEDIATE BOSON  
N LAMBDA  
N LIGHT NUCLEUS  
N N  
N NUCLEUS  
N OMEGA-  
-N P (USE 'P N, ...' AND 'N, BEAM')  
N QUARK  
N SIGMA  
N SIGMA+  
N SIGMA-  
N SIGMAO  
N VECTOR MESON  
N XI  
N XI-  
N XIO  
N(1670)  
N(1688)  
N(1860)  
N(2190)  
N(2220)  
N(2650)  
N(3030)  
-N\* (SEE 'NUCLEON RESONANCE' FOR I=1/2)  
-N-PI0 EXCHANGE (EXCHANGE, MULTIPION)  
\*N-POINT FUNCTIJN ('EQUALITY, N-POINT FUNCTION'  
  OR 'MODEL, N-POINT FUNCTION' OR 'MANY-BODY  
  PROBLEM')  
-N-/ METHOD (PARTIAL WAVE, DISPERSION RELATIONS)  
N\*(1470)  
N\*(1520)  
N\*(1535)  
N\*(1700)  
N\*(1780)  
-NAKANISHI REPRESENTATION (SPECTRAL  
  REPRESENTATION)  
-NAMBU (FIELD THEORETICAL MODEL)  
-NAMBU-GJUJSJOE (USE 'SYMMETRY,  
  SPONTANEOUSLY BROKEN')  
-NANOSECOND ELECTRONICS (FAST LOGIC)  
\*NARROW RESONANCE ('APPROXIMATION, NARROW  
  RESONANCE'; SEE ALSO 'PSI MESONS' OR MORE  
  SPECIFIC PARTICLES)  
NEGATIVE PARTICLE  
NEODYMIUM  
NEON  
NEPTUNIUM  
-NEUTRAL (SEE 'NEUTRAL CURRENT' OR 'NEUTRAL  
  PARTICLE')  
NEUTRAL CURRENT  
NEUTRAL PARTICLE  
-NEUTRAL WEAK CURRENT (NEUTRAL CURRENT,  
  WEAK CURRENT)  
-NEUTRALS (USE 'NEUTRAL PARTICLE')  
NEUTRINO  
NEUTRINO ANTI-K0  
NEUTRINO ANTI-N  
NEUTRINO ANTI-P  
NEUTRINO ANTIBARYON  
NEUTRINO ANTIHYPERON  
NEUTRINO ANTILAMBDA  
NEUTRINO ANTINEUTRINO  
NEUTRINO ANTNUCLEON  
NEUTRINO ANTISIGMA  
NEUTRINO ANTIXI  
NEUTRINO BARYON  
NEUTRINO BARYON RESONANCE  
NEUTRINO BOSON  
NEUTRINO DEUTERON  
NEUTRINO ELECTRON  
NEUTRINO HADRON  
NEUTRINO HYPERON  
NEUTRINO INTERMEDIATE BOSON  
NEUTRINO K  
NEUTRINO K+  
NEUTRINO K-  
NEUTRINO KO  
NEUTRINO LAMBDA  
NEUTRINO LIGHT NUCLEUS  
NEUTRINO MESON  
NEUTRINO MESON RESONANCE  
NEUTRINO MUON  
NEUTRINO MUON+  
NEUTRINO MUON-  
NEUTRINO N  
NEUTRINO NEUTRINO  
NEUTRINO NUCLEON  
NEUTRINO NUCLEUS  
NEUTRINO OMEGA-  
NEUTRINO P  
NEUTRINO PI  
NEUTRINO PI+  
NEUTRINO PI-  
NEUTRINO PIO  
NEUTRINO POSITRON  
NEUTRINO QUARK  
NEUTRINO SIGMA  
NEUTRINO SIGMA+  
NEUTRINO SIGMA-  
NEUTRINO SIGMAO  
NEUTRINO VECTOR MESON  
NEUTRINO XI  
NEUTRINO XI-  
NEUTRINO XIO  
NEUTRINO/E/  
NEUTRINO/L/  
NEUTRINO/M/  
\*NEUTRINOPRODUCTION (USED FOR PRODUCTION BY  
  NEUTRINOS OR ANTINEUTRINOS)  
-NEUTRON (USE 'N')  
-NEUTRON DETECTION (PARTICLE IDENTIFICATION, N)  
-NEVEU-SCHWARZ MODEL (MODEL, DUAL RESONANCE)  
\*NEW ELEMENT (ELEMENT, NEW ELEMENT)  
\*NEW INTERACTION ('MODEL, NEW INTERACTION'. VERY  
  RESTRICTED USE)  
  NEW PARTICLE  
  NICKEL  
\*NIMROD PS (AT CHILTON. ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
\*NINA ES (AT DARESBURY. ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
  NIOBIUM  
  NITROGEN  
\*NIU (POSTULATED PARTICLE, NIU)  
  NOBELIUM  
-NOETHER'S THEOREM ('GROUP THEORY' AND  
  'CONSERVATION LAW')  
\*NONABELIAN ('FIELD THEORY, NONABELIAN'; NOT  
  USED TOGETHER WITH 'FIELD THEORETICAL MODEL,  
  YANG-MILLS')  
\*NONDIFFRACTIVE  
\*NONLEPTONIC DECAY (NOT USED FOR RADIATIVE DECAYS)  
\*NONLINEAR  
\*NONLOCAL (SEE 'FIELD THEORY, NONLOCAL')  
\*NONPOLYNOMIAL (FIELD THEORETICAL MODEL,  
  NONPOLYNOMIAL)  
  NONRELATIVISTIC  
\*NONRENORMALIZABLE (FIELD THEORETICAL MODEL,  
  NONRENORMALIZABLE)  
\*NONSTRANGE (RESONANCE, NONSTRANGE)  
-NORMAL PRODUCT (NOT USED)  
\*NOVA (MODEL, NOVA)  
\*NOVOSIBIRSK STOR (ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
\*NOVOSIBIRSK STOR2 (ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
\*NOVOSIBIRSK STOR3 (ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
\*NOVOSIBIRSK STOR4 (ONLY FOR EXPERIMENTAL  
  RESULTS GAINED THERE)  
-NUCLEAR CASCADE (NUCLEUS, CASCADE)  
  NUCLEAR EMULSION  
-NUCLEAR EMULSION CHAMBER (USE 'NUCLEAR EMULSION'  
  AND POSSIBLY 'TOTAL-ABSORPTION COUNTER')  
  NUCLEAR ENGINEERING  
  NUCLEAR FORCE  
-NUCLEAR MATTER (USE 'MATTER')  
  NUCLEAR MEDICINE  
  NUCLEAR MODEL ((RESTRICTED USE) NUCLEAR-MODEL  
  PAPERS ARE NOT GENERALLY INCLUDED)  
  NUCLEAR PHYSICS  
  NUCLEAR PROPERTIES  
  NUCLEAR REACTION  
-NUCLEAR RESONANCE (SEE 'EXCITED NUCLEUS')  
-NUCLEAR STRUCTURE (SEE 'NUCLEAR PROPERTIES' OR  
  'NUCLEAR MODEL')  
  NUCLEON  
  NUCLEON ANTI-N  
  NUCLEON ANTI-P  
  NUCLEON ANTIHYPERON  
  NUCLEON ANTILAMBDA  
  NUCLEON ANTNUCLEON  
  NUCLEON ANTISIGMA  
  NUCLEON ANTIXI  
  NUCLEON BARYON RESONANCE  
  NUCLEON DEUTERON

NUCLEON HYPERON  
 NUCLEON INTERMEDIATE BOSON  
 -NUCLEON ISOBAR (NUCLEON RESONANCE)  
 \*NUCLEON J/PSI(3100)  
 NUCLEON LAMBDA  
 NUCLEON LIGHT NUCLEUS  
 NUCLEON N  
 NUCLEON NUCLEON  
 NUCLEON NUCLEUS  
 NUCLEON OMEGA-  
 NUCLEON P  
 NUCLEON QUARK  
 NUCLEON RESONANCE  
 -NUCLEON RESONANCE FORMATION (USE 'NUCLEON RESONANCE, SCATTERING')  
 NUCLEON SIGMA  
 NUCLEON SIGMA+  
 NUCLEON SIGMA-

NUCLEON SIGMA0  
 NUCLEON VECTOR MESON  
 NUCLEON XI  
 NUCLEON XI-  
 NUCLEON XIO  
 NUCLEUS  
 NUCLEUS INTERMEDIATE BOSON  
 NUCLEUS NUCLEUS  
 NUCLEUS QUARK  
 NUCLIDE  
 -NUMERICAL ANALYSIS (NUMERICAL CALCULATIONS, INTERPRETATION OF EXPERIMENTS)  
 \*NUMERICAL CALCULATIONS (GENERALLY ACCOMPANIED BY SPECIFICATION; THE COMBINATION 'INTERPRETATION OF EXPERIMENTS, NUMERICAL CALCULATIONS' IS USED FOR NUMERICAL ANALYSES)  
 NUMERICAL MATHEMATICS

\*J(N) (SYMMETRY, J(N))  
 \*J(3) (SYMMETRY, J(3))  
 \*J(3,1) (SYMMETRY, J(3,1))  
 \*J(4) (SYMMETRY, J(4))  
 \*J(4,2) (SYMMETRY, J(4,2))  
 \*DAK RIDGE LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 -JPEC (EXCHANGE, ONE-BOSON)  
 \*JCTET (QUARK, OCTET)  
 \*JCTET DOMINANCE (MODEL, OCTET DOMINANCE)  
 -JCTET LENS (QUADRUPOLE LENS, SPECIAL FOCUSING)  
 \*OFF-LINE (TRACK DATA ANALYSIS, OFF-LINE)  
 -OFF-MASS-SHELL (MODEL, OFF-SHELL)  
 \*OFF-SHELL (MODEL, OFF-SHELL)  
 -OKUBO-ZWEIG RULE (USE 'SELECTION RULE, IIZUKA-OKUBO-ZWEIG')  
 -OKUBO-ZWEIG-IIZUKA RULE (USE 'SELECTION RULE, IIZUKA-OKUBO-ZWEIG')  
 \*OMEGA (AT CERN; 'MAGNETIC DETECTOR, OMEGA')  
 -OMEGA SPECTROMETER (SEE 'MAGNETIC SPECTROMETER')  
 OMEGA(1675)  
 OMEGA(784)  
 \*OMEGA(784)-PHI(1019) (INTERFERENCE, OMEGA(784)-PHI(1019))  
 OMEGA-  
 OMEGA- ANTIOMEGA-  
 OMEGA- BARYON RESONANCE  
 OMEGA- DEUTERON  
 OMEGA- INTERMEDIATE BOSON  
 OMEGA- LIGHT NUCLEUS  
 OMEGA- NUCLEUS  
 OMEGA- OMEGA-  
 OMEGA- QUARK  
 OMEGA- VECTOR MESON  
 -OMEGA-PHI INTERFERENCE (INTERFERENCE, OMEGA(784)-PHI(1019))  
 -OMEGA-RHO INTERFERENCE (INTERFERENCE, RHO(765)-OMEGA(784))  
 \*ON-LINE ('COMPUTER, ON-LINE' (NOT FOR PAPERS CONTAINING EXPERIMENTAL RESULTS, EXCEPT WHEN PARTICULARS ARE GIVEN))

0  
 -ON-MASS-SHELL (MODEL, ON-SHELL)  
 \*ON-SHELL (MODEL, ON-SHELL)  
 \*ONE-BOSON (EXCHANGE, ONE-BOSON)  
 -ONE-LOOP APPROXIMATION (\*FEYNMAN GRAPH, HIGHER-ORDER\* OR 'DUAL FIELD THEORY, HIGHER-ORDER')  
 \*ONE-MESON (EXCHANGE, ONE-MESON)  
 \*ONE-PARTICLE (EXCHANGE, ONE-PARTICLE)  
 \*ONE-PHOTON (EXCHANGE, ONE-PHOTON)  
 \*ONE-PION (EXCHANGE, ONE-PION)  
 \*ONE-VECTOR MESON (EXCHANGE, ONE-VECTOR MESON)  
 -OPACITY (SEE 'ABSORPTION' OR 'MODEL, OPTICAL')  
 -OPE (EXCHANGE, ONE-PION)  
 -OPE MODEL (EXCHANGE, ONE-PION)  
 \*OPERATOR ALGEBRA (\*FIELD THEORY, OPERATOR ALGEBRA\* OR 'QUANTUM MECHANICS, OPERATOR ALGEBRA')  
 \*OPERATOR PRODUCT (FIELD THEORY, OPERATOR PRODUCT)  
 -OPERATOR PRODUCT EXPANSION (FIELD THEORY, OPERATOR PRODUCT)  
 \*OPTICAL (MODEL, OPTICAL)  
 \*OPTICAL THEOREM (TOTAL CROSS SECTION, OPTICAL THEOREM)  
 OPTICS  
 ORBIT  
 -ORBIT CALCULATIONS (SEE 'BEAM OPTICS' AND 'ORBIT')  
 ORGANIC COMPOUNDS  
 \*ORSAY LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*ORSAY STOR (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*OSCILLATION (NEUTRINO, OSCILLATION)  
 \*OSCILLATOR (MODEL, OSCILLATOR)  
 OSMIUM  
 -OVERLAP FUNCTION (DO NOT USE 'OVERLAPPING RESONANCES')  
 \*OVERLAPPING RESONANCES (MODEL, OVERLAPPING RESONANCES)  
 OXYGEN

P  
P ANTI-N  
P ANTIHYPERON  
P ANTILAMBDA  
P ANTISIGMA  
P ANTI $\chi$   
P BARYON RESONANCE  
P DEUTERON  
P HYPERON  
P INTERMEDIATE BOSON  
-P INVARIANCE (INVARIANCE, PARITY)  
P LAMBDA  
P LIGHT NUCLEUS  
P N  
-P NUCLEON (SEE 'NUCLEON P')  
P NUCLEUS  
P OMEGA-  
P P  
P QUARK  
P SIGMA  
P SIGMA+  
P SIGMA-  
P SIGMAO  
P VECTOR MESON  
P  $\chi$   
P  $\chi$ -  
P  $\chi$ 0  
-P-WAVE (PARTIAL WAVE)  
\*PADE (APPROXIMATION, PADE)  
PAIR  
\*PAIR PRODUCTION  
PALLADIUM  
-PARACHARMONIUM (SEE 'CHARMONIUM')  
\*PARAMETRIZATION (FOR FUNCTIONAL FITS USE  
'INTERPRETATION OF EXPERIMENTS, PARAMETRIZATION'  
OR 'NUMERICAL MATHEMATICS, PARAMETRIZATION' OR  
'STATISTICAL ANALYSIS, PARAMETRIZATION')  
\*PARASTATISTICS (STATISTICS,  
PARASTATISTICS)  
PARITY  
-PARTY CHECK (DIGITAL LOGIC)  
PARTIAL WAVE  
PARTIAL-WAVE ANALYSIS  
-PARTIALLY CONSERVED AXIAL-VECTOR CURRENT  
(MODEL, PCAC)  
-PARTIALLY CONSERVED VECTOR CURRENT (MODEL, PCVC)  
PARTICLE  
PARTICLE ANTI PARTICLE  
PARTICLE IDENTIFICATION  
-PARTICLE MODELS ('MODEL, PARTICLE' (RESTRICTED  
USE) OR 'MODEL, FERMION' OR 'MODEL, BARYON' OR  
'MODEL, BOSON' OR 'MODEL, MESON' OR 'MODEL,  
PHOTON' OR 'MODEL, HADRON')  
\*PARTICLE NUCLEUS  
PARTICLE SEPARATOR  
PARTICLE SOURCE  
-PARTICLE-HOLE MODEL (NUCLEAR PROPERTIES)  
\*PARTON ('MODEL, PARTON'. SEE ALSO 'MODEL, QUARK  
PARTON')  
\*PATH INTEGRAL (SEE 'FIELD THEORY, PATH INTEGRAL'  
OR 'PERTURBATION THEORY, PATH INTEGRAL')  
-PATH LENGTH (SEE 'ABSORPTION')  
-PATTERN RECOGNITION (SEE 'TRACK DATA ANALYSIS,  
ON-LINE' OR 'TRACK DATA ANALYSIS, OFF-LINE')  
PC(3510)  
\*PCAC (MODEL, PCAC)  
\*PCVC (MODEL, PCVC)  
\*PERIPHERAL (MODEL, PERIPHERAL)  
PERTURBATION THEORY  
-PEYRU PLOT ('TRANSVERSE MOMENTUM' AND  
'LONGITUDINAL MOMENTUM')  
-PHASE SHIFT (PARTIAL WAVE)  
\*PHASE SPACE ('KINEMATICS, PHASE SPACE' OR  
'STATISTICAL ANALYSIS, PHASE SPACE')  
-PHASE TRANSITION (SEE 'FIELD THEORY, CRITICAL  
PHENOMENA')  
-PHENOMENOLOGY (NOT USED)  
PHI(1019)  
-PHI(1650) (JMEGA(1675))  
-PHI-TU-THE-NTH MODEL (FIELD THEORETICAL MODEL,  
SCALAR)  
PHOSPHORUS  
-PHOTOCAPTURE (PHOTON, ABSORPTION)  
-PHOTODISINTEGRATION (USE 'PHOTOFISSION')  
-PHOTORECETION (SEE 'PHOTOCAPTURE, ABSORPTION' AND  
'EXCITED NUCLEUS')  
PHOTOFISSION  
-PHOTOMULTIPLIER (GENERALLY NOT INCLUDED. SEE  
'SCINTILLATION COUNTER')  
PHOTON (ALSO 'MODEL, PHOTON')  
PHOTON ANTI-KO  
PHOTON ANTI-N  
PHOTON ANTI-P  
PHOTON ANTIBARYON  
PHOTON ANTIHYPERON  
PHOTON ANTILAMBDA  
PHOTON ANTINEUTRINO  
PHOTON ANTINUCLEON  
PHOTON ANTISIGMA  
PHOTON ANTI $\chi$   
PHOTON BARYON  
PHOTON BARYON RESONANCE  
PHOTON BOSON  
PHOTON DEUTERON  
PHOTON ELECTRON  
-PHOTON EXCHANGE (EXCHANGE, PHOTON)  
PHOTON FERMION  
PHOTON HADRON  
PHOTON HYPERON  
PHOTON INTERMEDIATE BOSON  
PHOTON K  
PHOTON K+  
PHOTON K-  
PHOTON KO  
PHOTON LAMBDA  
PHOTON LEPTON  
PHOTON LIGHT NUCLEUS  
PHOTON MESON  
PHOTON MESON RESONANCE  
PHOTON MUON  
PHOTON MUON+  
PHOTON MUON-  
PHOTON N  
PHOTON NEUTRINO  
PHOTON NUCLEON  
PHOTON NUCLEUS  
PHOTON OMEGA-  
PHOTON P  
PHOTON PHOTON  
PHOTON PI  
PHOTON PI+  
PHOTON PI-  
PHOTON PIO  
PHOTON POSITRON  
PHOTON QUARK  
PHOTON SIGMA  
PHOTON SIGMA+  
PHOTON SIGMA-  
PHOTON SIGMAO  
-PHOTON SPECTROMETER (SEE 'TOTAL-ABSORPTION  
COUNTER')  
-PHOTON SPLITTING (ELECTROMAGNETIC INTERACTION,  
HIGHER-ORDER)  
PHOTON VECTOR MESON  
PHOTON  $\chi$   
PHOTON  $\chi$ -  
PHOTON  $\chi$ 0  
PHOTOPRODUCTION (FOR Q-SQUARED UNEQUAL 0, USE  
'ELECTROPRODUCTION')  
PI  
PI ANTI-KO  
PI ANTI-N  
PI ANTI-P  
PI ANTIBARYON  
PI ANTIHYPERON  
PI ANTILAMBDA  
PI ANTINUCLEON  
PI ANTISIGMA  
PI ANTI $\chi$   
PI BARYON  
PI BARYON RESONANCE  
PI DEUTERON  
PI HYPERON  
PI INTERMEDIATE BOSON  
PI K  
PI K+  
PI K-  
PI KO  
PI LAMBDA  
PI LIGHT NUCLEUS  
PI MESON RESONANCE  
PI N  
PI NUCLEON  
PI NUCLEUS  
PI OMEGA-  
PI P  
PI PI  
PI PI+  
PI PI-  
PI PIO  
PI QUARK  
PI SIGMA  
PI SIGMA+  
PI SIGMA-  
PI SIGMAO  
PI VECTOR MESON

PI XI  
 PI XI-  
 PI XIO  
 -PI(1640) (A3(1640))  
 -PI(975) (DELTA(970))  
 PI+  
 PI+ ANTI-KO  
 PI+ ANTI-N  
 PI+ ANTI-P  
 PI+ ANTIBARYON  
 PI+ ANTIHYPERON  
 PI+ ANTLAMBDA  
 PI+ ANTINUCLEON  
 PI+ ANTISIGMA  
 PI+ ANTIXI  
 PI+ BARYON  
 PI+ BARYON RESONANCE  
 PI+ DEUTERON  
 PI+ HYPERON  
 PI+ INTERMEDIATE BOSON  
 PI+ K  
 PI+ K+  
 PI+ K-  
 PI+ KO  
 PI+ LAMBDA  
 PI+ LIGHT NUCLEUS  
 PI+ MESON RESONANCE  
 PI+ N  
 PI+ NUCLEON  
 PI+ NUCLEUS  
 PI+ OMEGA-  
 PI+ P  
 PI+ PI+  
 PI+ PI-  
 PI+ QUARK  
 PI+ SIGMA  
 PI+ SIGMA+  
 PI+ SIGMA-  
 PI+ SIGMAO  
 PI+ VECTOR MESON  
 PI+ XI  
 PI+ XI-  
 PI+ XIO  
 PI-  
 PI- ANTI-KO  
 PI- ANTI-N  
 PI- ANTI-P  
 PI- ANTIBARYON  
 PI- ANTIHYPERON  
 PI- ANTLAMBDA  
 PI- ANTINUCLEON  
 PI- ANTISIGMA  
 PI- ANTIXI  
 PI- BARYON  
 PI- BARYON RESONANCE  
 PI- DEUTERON  
 PI- HYPERON  
 PI- INTERMEDIATE BOSON  
 PI- K  
 PI- K+  
 PI- K-  
 PI- KO  
 PI- LAMBDA  
 PI- LIGHT NUCLEUS  
 PI- MESON RESONANCE  
 PI- N  
 PI- NUCLEON  
 PI- NUCLEUS  
 PI- OMEGA-  
 PI- P  
 PI- PI-  
 PI- QUARK  
 PI- SIGMA  
 PI- SIGMA+  
 PI- SIGMA-  
 PI- SIGMAO  
 PI- VECTOR MESON  
 PI- XI  
 PI- XI-  
 PI- XIO  
 \*PI-RHO(765)-OMEGA(784) (CCOUPLING,  
   PI-RHO(765)-OMEGA(784))  
 PI/RHO(1540)  
 -PION EXCHANGE ('EXCHANGE, ONE-PION' OR 'EXCHANGE,  
   MULTIPION')  
 -PIONIC DECAY (USE 'NONLEPTONIC DECAY')  
 \*PIONIZATION (MULTIPLE PRODUCTION, PICNIZATION)  
 PIO  
 PIO ANTI-KO  
 PIO ANTI-N  
 PIO ANTI-P  
 PIO ANTIBARYON  
 PIO ANTIHYPERON  
 PIO ANTLAMBDA  
 PIO ANTINUCLEON  
 PIO ANTISIGMA  
 PIO ANTIXI  
 PIO BARYON  
 PIO BARYON RESONANCE  
 PIO DEUTERON  
 PIO HYPERON  
 PIO INTERMEDIATE BOSON  
 PIO K  
 PIO K+  
 PIO K-  
 PIO KO  
 PIO LAMBDA  
 PIO LIGHT NUCLEUS  
 PIO MESON RESONANCE  
 PIO N  
 PIO NUCLEON  
 PIO NUCLEUS  
 PIO OMEGA-  
 PIO P  
 PIO PI+  
 PIO PI-  
 PIO PIO  
 PIO QUARK  
 PIO SIGMA  
 PIO SIGMA+  
 PIO SIGMA-  
 PIO SIGMAO  
 PIO VECTOR MESON  
 PIO XI  
 PIO XI-  
 PIO XIO  
 \*PLANAK (FEYNMAN GRAPH, PLANAR)  
 PLASMA  
 -PLASTIC TRACK DETECTOR (SEE 'PLASTICS, TRACK  
   SENSITIVE')  
 PLASTICS  
 PLATINUM  
 -PLOTTING METHODS (SEE 'DATA ANALYSIS METHOD'  
   'RESTRICTED USE' OR 'MULTIDIMENSIONAL ANALYSIS,  
   PRISM PLOT' OR 'STATISTICAL ANALYSIS')  
 \*PLUTJ (AT DURIS AND PETRA; 'MAGNETIC DETECTOR,  
   PLUTO')  
 PLUTONIUM  
 -PJINCARE GROUP (GROUP THEORY, LORENTZ)  
 \*POKORSKI-SATZ-SCHILLING (MÜDEL, POKORSKI-SATZ-  
   SCHILLING)  
 \*POLAKIZABILITY  
 POLARIZATION  
 \*POLARIZED BEAM  
 \*POLARIZED TARGET  
 \*POLE (APPROXIMATION, POLE)  
 -POLE DOMINANCE ('MUJEL, POLE' OR 'MUEL,  
   RESONANCE')  
 POLONIUM  
 \*POMERANCHUK THEOREM (TOTAL CROSS SECTION,  
   POMERANCHUK THEOREM)  
 POMERON (ALSO 'POMERON, MULTI-REGGE')  
 -POMERON COUPLING (POMERON, COUPLING)  
 -POMERON EXCHANGE (POMERON, EXCHANGE)  
 -PJMERON-POMERON COUPLING (POMERON, COUPLING)  
 -PJMERON-POMERON-POMERON COUPLING (POMERON,  
   COUPLING)  
 \*POSITION SENSITIVE (COUNTERS AND DETECTORS,  
   POSITION SENSITIVE)  
 POSITIVE PARTICLE  
 -POSITIVITY (SEE 'AXIOMATIC FIELD THEORY')  
 POSITRON  
 POSITRON ANTI-KO  
 POSITRON ANTI-N  
 POSITRON ANTI-P  
 POSITRON ANTIBARYON  
 POSITRON ANTIHYPERON  
 POSITRON ANTLAMBDA  
 POSITRON ANTINUCLEON  
 POSITRON ANTISIGMA  
 POSITRON ANTIXI  
 POSITRON BARYON  
 POSITRON BARYON RESONANCE  
 POSITRON BOSON  
 POSITRON DEUTERON  
 POSITRON HADRON  
 POSITRON HYPERON  
 POSITRON INTERMEDIATE BOSON  
 POSITRON K  
 POSITRON K+  
 POSITRON K-  
 POSITRON KO  
 POSITRON LAMBDA  
 POSITRON LIGHT NUCLEUS  
 POSITRON MESON  
 POSITRON MESON RESONANCE

P POSITRON MUON  
POSITRON MUON+  
POSITRON MUON-  
POSITRON N  
POSITRON NUCLEON  
POSITRON NUCLEUS  
POSITRON OMEGA-  
POSITRON P  
POSITRON PI  
POSITRON PI+  
POSITRON PI-  
POSITRON PIO  
POSITRON POSITRON  
POSITRON QUARK  
POSITRON SIGMA  
POSITRON SIGMA+  
POSITRON SIGMA-  
POSITRON SIGMAO  
POSITRON VECTOR MESON  
POSITRON XI  
POSITRON XI-  
POSITRON XIO  
POSITRION  
POSTULATED PARTICLE  
POTASSIUM  
POTENTIAL  
-PJTENTIAL MODEL (PJTENTIAL SCATTERING)  
POTENTIAL SCATTERING  
POWER ENGINEERING  
POWER SUPPLY  
PRASEODYMIUM  
-PREDICTION (PROPOSED EXPERIMENT, NUMERICAL CALCULATIONS)  
PREPROCESSING (SEE ALSO 'DIGITAL LOGIC, READOUT' OR 'MICROPROCESSOR, PREPROCESSING' OR 'DIGITAL LOGIC, PREPROCESSING')  
\*PRESSURE  
\*PRIMAKOFF (EFFECT, PRIMAKOFF)  
\*PRIMARY (USE IN 'COSMIC RADIATION, PRIMARY')  
\*PRIMEVAL FIREBALL (ASTROPHYSICS)  
\*PRINCETON PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
\*PRISM PLUT (MULTIDIMENSIONAL ANALYSIS, PRISM PLUT)  
-PROBABILITY (STATISTICS)  
-PROCESS CONTROL COMPUTER (COMPUTER, CONTROL SYSTEM)  
\*PRODUCTION  
-PRODUCTION CROSS SECTION ('PRODUCTION' AND (GENERALLY) 'TOTAL CROSS SECTION')  
PROGRAMMING  
-PROJECT ('EXPERIMENTAL EQUIPMENT, PROPOSED' OR 'ACCELERATOR, PROPOSED')  
PROMETHIUM  
-PROMPT PARTICLE (USE 'DIRECT PRODUCTION')  
PROPAGATOR  
PROPORTIONAL CHAMBER  
PROPORTIONAL COUNTER  
-PROPORTIONAL WIRE CHAMBER (PROPORTIONAL CHAMBER)  
\*PROPOSED ('EXPERIMENTAL EQUIPMENT, PROPOSED' OR 'ACCELERATOR, PROPOSED')  
PROPOSED EXPERIMENT  
PROTACTINIUM  
PROTON SYNCHROTRON  
\*PSEUDOSCALAR (RESTRICTED USE)  
PSEUDOSCALAR MESON  
-PSEUDOSCALAR MESON DOMINANCE (MODEL, MESON DOMINANCE)  
\*PSEUDOVECTOR ((RESTRICTED USE) WHEN 'PSEUDOVECTOR' AND 'VECTOR MESON' APPLICABLE, USE 'VECTOR MESON' ONLY)  
PSI MESONS (RESTRICTED TO THEORETICAL PAPERS ON PSI SPECTROSCOPY)  
-PSI(3100) (USE 'J/PSI(3100)')  
PSI(3700)  
PSI(3950) STRUCTURE  
PSI(44100) STRUCTURE  
PSI(4400)  
-PULSE ANALYZER (ANALOG-TO-DIGITAL CONVERTER)  
-PULSE GENERATOR (NOT INCLUDED)  
-PULSE LIMITER (FAST LOGIC)  
-PULSE SHAPER (FAST LOGIC)  
-PULSE SPECTROMETER ('MAGNETIC SPECTROMETER' AND 'FAST LOGIC, COINCIDENCE' OR 'SPARK CHAMBER')  
-PULSE-HEIGHT ANALYZER (ANALOG-TO-DIGITAL CONVERTER)  
PULSED MAGNET

Q Q REGION  
-QC/Z SPECTROMETER (MAGNETIC SPECTROMETER)  
QUADRUPOLE LENS  
-QUANTAMETER (SEE 'IONIZATION CHAMBER' AND 'BEAM MONITORING')  
QUANTIZATION  
QUANTUM CHROMODYNAMICS  
QUANTUM ELECTRODYNAMICS  
-QUANTUM FIELD THEORY (USE 'FIELD THEORY')  
QUANTUM MECHANICS  
QUANTUM NUMBER  
QUARK  
QUARK ANTIQUARK  
QUARK INTERMEDIATE BOSON  
-QUARK MODEL (QUARK)  
\*QUARK PARTON (MODEL, QUARK PARTON)  
QUARK QUARK  
-QUARK SEARCH ('SEARCH FOR, QUARK'. ONLY FOR EXPERIMENTAL SEARCHES FOR QUARKS)  
-QUARK-GLUON (SEE 'QUARK, GLUON' OR 'FIELD THEORY, ASYMPTOTIC FREEDOM')  
\*QUARTET (QUARK, QUARTET)  
\*QUASICLASSICAL (APPROXIMATION, QUASICLASSICAL)  
-QUASIELASTIC SCATTERING (USE 'ELASTIC SCATTERING')  
\*QUASIPOTENTIAL (MODEL, QUASIPOTENTIAL)  
\*QUINTET (QUARK, QUINTET)  
Q1(1300)  
Q2(1400)

**RADIATION**  
-RADIATION DETECTOR (NOT USED. SEE MORE SPECIFIC KEYWORDS)  
-RADIATION DOSE (SEE 'DOSIMETRY')  
-RADIATION EFFECT (SEE 'RADIATION, EFFECT')  
**RADIATION LENGTH**  
-RADIATION PROTECTION (SEE 'ABSORPTION' OR 'ENERGY LOSS' OR 'SHIELDING' OR 'HEALTH PHYSICS' OR 'DOSIMETRY')  
**\*RADIATIVE CAPTURE**  
-RADIATIVE CORRECTION (FOR ELECTRON SCATTERING ONLY. IN OTHER CASES SEE 'FEYNMAN GRAPH')  
**\*RADIATIVE DECAY** (SEE ALSO 'ELECTROMAGNETIC DECAY')  
**RADIOACTIVITY**  
-RADIOCHEMISTRY ('RADIODACTIVITY' AND 'CHEMISTRY')  
**RADIUM**  
**RADON**  
-RANGE TELESCOPE (SEE 'SCINTILLATION COUNTER' AND 'ENERGY LOSS' AND 'FAST LOGIC, COINCIDENCE')  
-RANGE-ENERGY RELATION (USE 'ENERGY LOSS')  
-RAPID CYCLING BUBBLE CHAMBER (USE 'BUBBLE CHAMBER')  
**\*RAPIDITY**  
-\*RARITA-SCHWINGER (FIELD EQUATIONS, RARITA-SCHWINGER)  
-\*RATIO (SEE 'TOTAL CROSS SECTION, RATIO' OR 'WIDTH, RATIO' OR 'MASS, RATIO')  
-REACTION AMPLITUDE (SEE 'SCATTERING AMPLITUDE' (RESTRICTED USE), ONLY IN CASES OF CENTRAL IMPORTANCE)  
-REACTION MECHANISM (USE MORE SPECIFIC TERM)  
-\*READOUT (DIGITAL LOGIC, READOUT)  
-REAL TIME (SEE 'CONTROL SYSTEM' AND 'COMPUTER, ON-LINE')  
**RECOIL**  
-\*REFLECTION  
-\*REGENERATION (KO, REGENERATION)  
-REGGE CUT ('MUJEL, REGGE CUT'; ONLY FOR PAPERS TREATING MODELS)  
**REGGE POLES**  
-REGGE TRAJECTORIES (SEE 'REGGE POLES')  
-REGGEON (SEE 'REGGE POLES' OR 'REGGE POLES, REGGEON FIELD THEORY')  
-\*REGGEON FIELD THEORY (REGGE POLES, REGGEON FIELD THEORY)  
-\*REGGEON-PARTICLE (SEE 'SCATTERING, REGGEON-PARTICLE' OR 'COUPLING, REGGEON-PARTICLE')  
-\*REGULARIZATION (RENORMALIZATION, REGULARIZATION)  
-\*RELATIVISTIC  
-RELATIVISTIC QUANTUM MECHANICS (QUANTUM MECHANICS, RELATIVISTIC)  
**RELATIVITY THEORY**  
-\*RENORMALIZABLE (FIELD THEORETICAL MODEL, RENORMALIZABLE)

**RENORMALIZATION**  
**RENORMALIZATION GROUP**  
-REPRESENTATION (SEE 'GROUP THEORY' OR 'MANDELSTAM REPRESENTATION' OR 'SPECTRAL REPRESENTATION')  
-REPRESENTATION THEORY (SEE 'GROUP THEORY')  
-REPULSION  
-REPULSIVE CORE  
-RESCATTERING (SEE 'MULTIPLE SCATTERING')  
-RESISTIVE-WALL EFFECT (SEE 'BEAM INSTABILITY' OR 'BEAM DYNAMICS')  
-\*RESOLUTION (EXPERIMENTAL EQUIPMENT, RESOLUTION)  
-RESONANCE (RESTRICTED USE FOR 'MODEL, RESONANCE')  
-\*RESONANCE DOMINANCE (MODEL, RESONANCE DOMINANCE)  
-RESONANCE FORMATION (USE 'RESONANCE, SCATTERING')  
-RESONANCE INTERACTION MODEL (MODEL, OVERLAPPING RESONANCES)  
-RESONANCE MIXING (INTERFERENCE, RESONANCE)  
-\*RESONANCE SCATTERING (MODEL, RESONANCE SCATTERING)  
-RESONANCE SPECTROSCOPY ('HADRON SPECTROSCOPY' OR 'MULTIPLET')  
-REVIEW  
-RF CAVITY (SEE 'RF SYSTEM')  
-RF FIELD (SEE 'RF SYSTEM')  
-RF SEPARATOR (USE 'PARTICLE SEPARATOR' AND POSSIBLY 'BEAM TRANSPORT')  
**RF SYSTEM**  
**RHENIUM**  
-RHO DOMINANCE MODEL (MODEL, VECTOR DOMINANCE)  
-RHO EXCHANGE (EXCHANGE, RHO(765))  
-RHO(1660) (G(1680))  
-RHO(1710)  
-RHO(765)  
-RHO(765)+  
-RHO(765)-  
-\*RHO(765)-OMEGA(784) (INTERFERENCE, RHO(765)-OMEGA(784))  
-RHO(765)0  
-RHO-OMEGA (INTERFERENCE, RHO(765)-OMEGA(784))  
-RHO\*(1600)  
**RHODIUM**  
-ROPER RESONANCE (N(1470))  
-\*ROSENBLUTH FORMULA ('EXCHANGE, ONE-PHOTON' AND E.G., 'ELECTRON P, ROSENBLUTH FORMULA')  
-ROSS-STJOLESKY (RHO(765), PHOTOPRODUCTION)  
-\*ROT (PROPOSED FOR PETRA; 'MAGNETIC DETECTOR, ROT')  
-ROTATION  
-\*ROTATIONAL (SYMMETRY, ROTATIONAL)  
-\*ROTATIONAL STATE (MODEL, ROTATIONAL STATE)  
-\*ROTATOR (MODEL, ROTATOR)  
**RUBBER**  
**RUBIDIUM**  
**RUTHENIUM**

S S(1930)  
 S\*(1000)  
 S-MATRIX  
 -S-WAVE (PARTIAL WAVE)  
 \*SACLAY LINAC  
 \*SACLAY PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 SAFETY (FOR ASPECTS OTHER THAN NUCLEAR. SEE ALSO 'HEALTH PHYSICS' OR 'DOSEMETRY' OR 'SHIELDING')  
 \*SAKATA (MODEL, SAKATA)  
 -SALAM-STRATHDEE (FIELD THEORY, SUPERSYMMETRY)  
 -SALAM-WEINBERG MODEL (FIELD THEORETICAL MODEL, WEINBERG)  
 SAMARIUM  
 -SANWICH COUNTER (SEE, E.G., 'SCINTILLATION COUNTER, LEAD'; OR E.G., 'CHERENKOV COUNTER, IRON')  
 \*SASKATTON LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SATELLITE (USED IN CONNECTION WITH COSMIC-RADIATION EXPERIMENTS)  
 -SAXON-WOODS ('POTENTIAL' OR 'POTENTIAL SCATTERING')  
 \*SCALAR (RESTRICTED USE)  
 SCALAR MESON  
 -SCALAR MESON DOMINANCE (MODEL, MESON DOMINANCE)  
 -SCALE INVARIANCE (USE 'SCALING')  
 -SCALER (DIGITAL LOGIC)  
 SCALING (ALSO USED FOR SCALE INVARIANCE. FOR SCALING VIOLATION: 'SCALING, VIOLATION')  
 -SCALING VIOLATION (SCALING, VIOLATION)  
 SCANDIUM  
 -SCANNING (SEE 'TRACK MEASURING')  
 SCATTERING (RESTRICTED USE)  
 SCATTERING AMPLITUDE (RESTRICTED USE, ONLY FOR CASES OF CENTRAL IMPORTANCE; SEE ALSO S-MATRIX)  
 SCATTERING LENGTH  
 -SCC (CAMAC SYSTEM, CONTROLLER)  
 \*SCHWINGER (FIELD THEORETICAL MODEL, SCHWINGER)  
 -SCHWINGER SOURCE THEORY (FIELD THEORY)  
 \*SCHWINGER TERMS (CURRENT ALGEBRA, SCHWINGER TERMS)  
 SCINTILLATION COUNTER  
 -SCINTILLATOR (NOT INCLUDED IN SCOPE)  
 \*SCREENING (EFFECT, SCREENING)  
 \*SEAGULL (EFFECT, SEAGULL)  
 SEARCH FOR (ONLY FOR EXPERIMENTAL SEARCHES FOR POSTULATED PARTICLES)  
 -SECOND QUANTIZATION (FIELD THEORY, QUANTIZATION)  
 -SECOND-CLASS CURRENT (WEAK INTERACTION, CURRENT)  
 -SECONDARY PARTICLE  
 SECONDARY RADIATION  
 -SECONDARY-EMISSION MONITORING (BEAM MONITORING)  
 -SECTOR-FOCUSING CYCLOTRON (CYCLOTRON, ISOCIRCUUS)  
 -SECURITY (SEE 'SAFETY' OR 'HEALTH PHYSICS' OR 'DOSEMETRY' OR 'SHIELDING')  
 SELECTION RULE  
 SELENIUM  
 -SELF-CONSISTENT CALCULATION ('BOOTSTRAP' OR, IF QUANTUM MECHANICS, 'APPROXIMATION, HARTREE-FOCK')  
 -SELF-COUPLING (NOT USED)  
 -SELF-ENERGY (PROPAGATOR, RENORMALIZATION)  
 -SELF-INTERACTION (RENORMALIZATION)  
 -SEMICLASSICAL (SEE 'APPROXIMATION, QUASICLASSICAL' OR 'APPROXIMATION, WKB')  
 SEMICONDUCTOR  
 SEMICONDUCTOR DETECTOR (SEE ALSO 'SOLID-STATE COUNTER')  
 -SEMIINCLUSIVE REACTION (USE 'INCLUSIVE REACTION')  
 \*SEMILEPTONIC DECAY  
 \*SENDAI LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SEPARABLE POTENTIAL (MODEL, SEPARABLE POTENTIAL)  
 \*SEPARATED-ORBIT (CYCLOTRON, SEPARATED-ORBIT)  
 \*SEPTET (QUARK, SEPTET)  
 -SEPTUM MAGNET (SEE 'MAGNET, EJECTION')  
 \*SERIAL HIGHWAY (CAMAC SYSTEM, SERIAL HIGHWAY)  
 \*SERPUKHOV PS (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SEXETET (QUARK, SEXETET)  
 -SEXTUPOLE LENS (QUADRUPOLE LENS, SPECIAL FOCUSING)  
 -SHADOW SCATTERING (SEE 'MODEL, OPTICAL' OR 'MODEL, VECTOR DOMINANCE')  
 \*SHADOWING (EFFECT, SHADOWING)  
 \*SHELL (MODEL, SHELL)  
 SHIELDING  
 \*SHOCK WAVES (MODEL, SHOCK WAVES)  
 \*SHORT-DISTANCE BEHAVIOR (FIELD THEORY, SHORT-DISTANCE BEHAVIOR)

\*SHORT-RANGE (USED ONLY AS 'CORRELATION, SHORT-RANGE'. NOT USED FOR SHORT-RANGE FORCES)  
 -SHOWER COUNTER (USE 'SHOWER DETECTOR')  
 SHOWER DETECTOR  
 -SHOWER SPECTROMETER (USE 'SHOWER DETECTOR')  
 SHOWERS  
 -SHRINKAGE (HIGH ENERGY BEHAVIOR)  
 SIGMA (USED FOR THE HYPERON; ALSO 'FIELD THEORETICAL MODEL, SIGMA')  
 SIGMA ANTISIGMA  
 SIGMA BARYON RESONANCE  
 SIGMA DEUTERON  
 SIGMA INTERMEDIATE BOSON  
 -SIGMA MODEL (FIELD THEORETICAL MODEL, SIGMA)  
 SIGMA NUCLEUS  
 SIGMA QUARK  
 -SIGMA TERM MODEL (USE 'SYMMETRY, CHIRAL' AND, E. G., 'MESON NUCLEON, INTERACTION')  
 SIGMA VECTOR MESON  
 SIGMA(1385)  
 SIGMA(1765)  
 SIGMA(1915)  
 SIGMA(2030)  
 SIGMA(2250)  
 SIGMA(2455)  
 SIGMA(2620)  
 SIGMA+  
 SIGMA+ BARYON RESONANCE  
 SIGMA+ DEUTERON  
 SIGMA+ INTERMEDIATE BOSON  
 SIGMA+ NUCLEUS  
 SIGMA+ QUARK  
 SIGMA+ SIGMA-  
 SIGMA+ SIGMA0  
 SIGMA+ VECTOR MESON  
 SIGMA-  
 SIGMA- BARYON RESONANCE  
 SIGMA- DEUTERON  
 SIGMA- INTERMEDIATE BOSON  
 SIGMA- NUCLEUS  
 SIGMA- QUARK  
 SIGMA- VECTOR MESON  
 SIGMA'(1670)  
 SIGMA'(1750)  
 SIGMA'(1940)  
 SIGMA0  
 SIGMA0 BARYON RESONANCE  
 SIGMA0 DEUTERON  
 SIGMA0 INTERMEDIATE BOSON  
 SIGMA0 NUCLEUS  
 SIGMA0 QUARK  
 SIGMA0 SIGMA-  
 SIGMA0 VECTOR MESON  
 SILICON  
 SILVER  
 \*SIN CYCL (AT VILLAGEN. ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SINE-GORDON ('FIELD EQUATIONS, SINE-GORDON' OR 'QUANTUM MECHANICS, SINE-GORDON')  
 -SINGLE (FOR SINGLE PARTICLES SEE 'ONE-PARTICLE', 'ONE-MESON' ETC.)  
 -SINGLE PARTICLE (SEE 'ONE-PARTICLE'; ALSO 'INCLUSIVE PRODUCTION')  
 -SINGLE-ARM SPECTROMETER (SEE 'MAGNETIC SPECTROMETER')  
 -SINGLE-LOOP APPROXIMATION ('FEYNMAN GRAPH, HIGHER-ORDER' OR 'DUAL FIELD THEORY, HIGHER-ORDER')  
 -SKELETON (FEYNMAN GRAPH)  
 \*SL(2,C) (SYMMETRY, SL(2,C))  
 \*SLAC LINAC (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SLAC STUR (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)  
 \*SLAVNOV IDENTITY (GAUGE FIELD THEORY, SLAVNOV IDENTITY)  
 \*SMALL-ANGLE  
 -SMOKATRON (ACCELERATOR, ELECTRON RING)  
 \*SO(N) (SYMMETRY, SO(N))  
 \*SO(2,2) (SYMMETRY, SO(2,2))  
 \*SO(3) (SYMMETRY, SO(3))  
 \*SO(4) (SYMMETRY, SO(4))  
 \*SODING (MODEL, SODING)  
 SODIUM  
 -SOFT PHOTON (IRRADIATIVE CORRECTION)  
 -SOFT PIONS ('CURRENT ALGEBRA, EFFECTIVE LAGRANGIANS' OR 'MODEL, PCAC')  
 SOLID-STATE COUNTER (SEE ALSO 'SUPERCONDUCTOR DETECTOR')  
 SOLIDS  
 \*SOLITON (FIELD THEORY, SOLITON)  
 -SOMMERFELD-WATSON TRANSFORMATION (REGGE POLES)

-SONIC SPARK CHAMBER (SPARK CHAMBER, ACOUSTIC)  
 -SOURCE (SEE 'FIELD THEORY' OR  
   'PARTICLE SOURCE')  
 -SOURCE ALGEBRA (CURRENT ALGEBRA)  
 \*SPACE  
 \*SPACE CHARGE (FOR ACCELERATORS ONLY)  
 \*SPACE RAD LAB LINAC (ONLY FOR EXPERIMENTAL  
   RESULTS GAINED THERE)  
 -SPALLATION (SEE 'FISSION')  
 SPARK CHAMBER  
 \*SPATIAL DISTRIBUTION (ONLY USED FOR COSMIC  
   RADIATION; SEE ALSO 'ANGULAR DISTRIBUTION')  
 \*SPATIAL RESOLUTION (COUNTERS AND DETECTORS,  
   SPATIAL RESOLUTION)  
 -SPEAR (FOR ACCELERATOR ASPECTS, 'ELECTRON  
   POSITRON, STORAGE RING'. FOR EXPERIMENTAL  
   RESULTS, 'SLAC STORE')  
 \*SPECIAL FOCUSING (MAGNET, SPECIAL FOCUSING)  
 \*SPECTATOR ('MODEL, SPECTATOR', POSSIBLY ALSO  
   'MODEL, DEUTERON')  
 SPECTRA  
 -SPECTRAL FUNCTION (SEE 'SPECTRAL REPRESENTATION'  
   OR 'MANDELSTAM REPRESENTATION')  
 SPECTRAL REPRESENTATION  
 SPECTROMETER ((RESTRICTED USE), SEE 'MAGNETIC  
   SPECTROMETER'. SEE ALSO 'HADRON SPECTROSCOPY')  
 -SPECTROSCOPY (SEE 'SPECTROMETER' OR 'MAGNETIC  
   SPECTROMETER'. SEE ALSO 'HADRON SPECTROSCOPY')  
 SPIN  
 -SPIN FLIP (SEE 'AMPLITUDE ANALYSIS')  
 -SPIN NONFLIP (SEE 'AMPLITUDE ANALYSIS')  
 -SPIN-PARITY ANALYSIS (PARTIAL-WAVE ANALYSIS)  
 \*SPINLESS ((RESTRICTED USE), NOT USED FOR BOSONS)  
 SPINOR  
 -SPINOR FIELD THEORY (FIELD THEORY, SPINOR)  
 -SPLITTING (SEE 'MASS DIFFERENCE')  
 \*SPONTANEOUSLY BROKEN (SYMMETRY, SPONTANEOUSLY  
   BROKEN)  
 -SPURION (SEE 'SYMMETRY, U(1)')  
 -SQUARE-WELL POTENTIAL (POTENTIAL SCATTERING)  
 \*STACK ('COUNTERS AND DETECTORS, STACK' OR  
   'NUCLEAR EMULSION, STACK')  
 \*STACKING ('INJECTION, STACKING' AND 'STORAGE  
   RING')  
 \*STANFORD LINAC MK3 (ONLY FOR EXPERIMENTAL  
   RESULTS GAINED THERE)  
 -STATIC MODEL (SEE 'MODEL, CHEW-LOW')  
 \*STATISTICAL (MODEL, STATISTICAL)  
 STATISTICAL ANALYSIS (RESTRICTED TO BASIC  
   PAPERS)  
 -STATISTICAL BOOTSTRAP (BOOTSTRAP, STATISTICAL)  
 STATISTICAL MECHANICS  
 -STATISTICAL TENSOR (SPIN, DENSITY MATRIX)  
 STATISTICS  
 STEEL  
 \*STICHEL THEOREM (SELECTION RULE, STICHEL THEOREM)  
 \*STICHEL-SCHOLZ (MODEL, STICHEL-SCHOLZ)  
 -STIMULATED EMISSION (SEE 'OPTICS, LASER' OR  
   'RADIATIVE DECAY' OR 'ATOMIC PHYSICS')  
 -STOCHASTIC MODEL (MODEL, STATISTICAL)  
 \*STODOLSKY-SAKURAI (MODEL, STODOLSKY-SAKURAI)  
 STORAGE RING (FOR ACCELERATOR ASPECTS ONLY; FOR  
   EXPERIMENTAL RESULTS USE 'COLLIDING BEAMS')  
 STRANGE PARTICLE  
 STRANGENESS

\*STRANGENESS CHANGING (CURRENT, STRANGENESS  
   -CHANGING)  
 STREAMER CHAMBER  
 \*STRING (MODEL, STRING)  
 \*STRIP (APPROXIMATION, STRIP)  
 -STRONG ABSORPTION (MODEL, ABSORPTION)  
 \*STRONG COUPLING (MODEL, STRONG COUPLING)  
 STRONG INTERACTION (ALSO 'MODEL, STRONG  
   INTERACTION')  
 STRONTIUM  
 \*STRUCTURE FUNCTION (USE ONLY SINGLY. OCCURS WITH  
   'INCLUSIVE REACTION' OR 'DEEP INELASTIC  
   SCATTERING'. DO NOT USE 'ANALYTIC PROPERTIES')  
 \*SU(N) (SYMMETRY, SU(N))  
 \*SU(N) X SU(N) (SYMMETRY, SU(N) X SU(N))  
 \*SU(1,1) (SYMMETRY, SU(1,1))  
 \*SU(2) (SYMMETRY, SU(2))  
 \*SU(2) X SU(2) (SYMMETRY, SU(2) X SU(2))  
 \*SU(2) X U(1) (SYMMETRY, SU(2) X U(1))  
 \*SU(2) X U(1) X SU(3)  
   (SYMMETRY, SU(2) X U(1) X SU(3))  
 \*SU(2)W (SYMMETRY, SU(2)W)  
 \*SU(2,2) (SYMMETRY, SU(2,2))  
 \*SU(3) (SYMMETRY, SU(3))  
 \*SU(3) X SU(3) (SYMMETRY, SU(3) X SU(3))  
 \*SU(3) X SU(3) (SYMMETRY, SU(3) X SU(3))  
 \*SU(3) X U(1) (SYMMETRY, SU(3) X U(1))  
 \*SU(3)' (SYMMETRY, SU(3)')  
 \*SU(3)'' X SU(3)''' (SYMMETRY, SU(3)'' X SU(3)''')  
 \*SU(3)''' (SYMMETRY, SU(3)''')  
 \*SU(4) (SYMMETRY, SU(4))  
 \*SU(4) X SU(4) (SYMMETRY, SU(4) X SU(4))  
 \*SU(6) (SYMMETRY, SU(6))  
 \*SU(6) X O(3) (SYMMETRY, SU(6) X O(3))  
 \*SU(6)W (SYMMETRY, SU(6)W)  
 \*SU(8) (SYMMETRY, SU(8))  
 \*SUGAWARA (MODEL, SUGAWARA)  
 SULFUR  
 SUM RULE  
 SUPERCONDUCTING (FOR APPARATUS; ALSO USED  
   THEORETICALLY: 'MODEL, SUPERCONDUCTING')  
 -SUPERCONDUCTIVITY (SEE 'SUPERCONDUCTING')  
 \*SUPERCONVERGENCE (SUM RULE, SUPERCONVERGENCE)  
 -SUPERFIELD (FIELD THEORY, SUPER SYMMETRY)  
 -SUPERAUGAUGE (GAUGE FIELD THEORY, SUPERSYMMETRY)  
 -SUPERMULTIPLLET (USE 'MULTIPLLET')  
 -SUPERPOSITION ('INTERFERENCE' (RESTRICTED USE))  
 \*SUPERPROPAGATOR (PROPAGATOR, SUPERPROPAGATOR)  
 \*SUPERRENORMALIZABLE (FIELD THEORETICAL MODEL,  
   SUPERRENORMALIZABLE)  
 \*SUPERSELECTION RULE (SUM RULE, SUPERSELECTION  
   RULE)  
 \*SUPERSYMMETRY (FIELD THEORY, SUPERSYMMETRY)  
 \*SUPERWEAK INTERACTION (WEAK INTERACTION,  
   SUPERWEAK INTERACTION)  
 -SUSCEPTIBILITY (SEE 'MAGNET')  
 SYMMETRY  
 SYMMETRY BREAKING  
 -SYMPLECTIC GROUPS (SEE 'GROUP THEORY')  
 SYNCHRO-CYCLOTRON  
 -SYNCHROPHASOTRON (SYNCHROTRON OR PROTON  
   SYNCHROTRON OR ELECTRON SYNCHROTRON)  
 SYNCHROTRON  
 SYNCHROTRON OSCILLATION

- T-INVARIANCE (INVARIANCE, TIME REVERSAL)
- T-MATRIX (S-MATRIX)
  - TABLES
- \*TACHYON (POSTULATED PARTICLE, TACHYONI)
- \*TAPOULE (FEYNMAN GRAPH, TAPOLE)
- \*TAGGED BEAM ('PHOTON, TAGGED BEAM' OR 'ELECTRON, TAGGED BEAM')
- TALK (NOT USED AS A KEYWORD. FOR CONFERENCE LECTURES AND REVIEWS, KEYWORDS 'LECTURES' OR 'REVIEW' WILL BE USED. OTHER CONFERENCE TALKS HAVE ENTRY (TALK) AFTER TITLE.)
- TANTALUM
- TARGET
- TARGET POLARIZATION (USE 'TARGET, POLARIZATION' FOR MEASUREMENT OF POLARIZATION DEGREE. SEE ALSO 'POLARIZED TARGET')
- \*TASSO (PROPOSED FOR PETRA; 'MAGNETIC DETECTOR, TASSO')
- TCP (SEE 'CPT')
- TOC (FAST LOGIC, TIME-OF-FLIGHT)
  - TECHNETIUM
- TECHNOLOGY (SEE FOR MORE SPECIFIC TERMS)
- TELESCOPE (SEE MORE SPECIFIC KEYWORD)
  - TELLURIUM
  - TEMPERATURE
- \*TENSOR (RESTRICTED USE)
- \*TENSOR MESON
- TENSOR MESON DOMINANCE (MODEL, MESON DOMINANCE)
- TERBIUM
- THALLIUM
- THEORY OF ELEMENTARY PARTICLES
- THERMAL SHIELDING (VACUUM SYSTEM)
- \*THERMODYNAMICAL (MODEL, THERMODYNAMICAL)
  - THERMODYNAMICS
- \*THERMOLUMINESCENCE (COUNTERS AND DETECTORS, THERMOLUMINESCENCE)
- THESIS (INCLUDING SOME MASTERS' THESES)
- \*THIRRING (FIELD THEORETICAL MODEL, THIRRING)
- THORIUM
- THREE-BODY ANNIHILATION (MULTIPLE PRODUCTION, ANNIHILATION)
- THREE-BODY PROBLEM
- THREE-MESON (SEE 'EXCHANGE, MULTIMESON')
- THREE-PHOTON (SEE 'EXCHANGE, MULTIPHOTON')
- THREE-PION (SEE 'EXCHANGE, MULTIPION')
- THREE-POINT FUNCTION (VERTEX FUNCTION)
  - THRESHOLD
- THULIUM
- TIME DISTRIBUTION (SEE 'TIME VARIATION'; ONLY USED FOR COSMIC RADIATION OR FUNDAMENTAL CONSTANTS)
- \*TIME MEASUREMENT (SEE ALSO 'FAST LOGIC, TIME RESOLUTION')
- \*TIME RESOLUTION (COUNTERS AND DETECTORS, TIME RESOLUTION)
- TIME-OF-FLIGHT (FAST LOGIC, COINCIDENCE)
- \*TIME REVERSAL ('INVARIANCE, TIME REVERSAL' OR 'VIOLATION, TIME REVERSAL')
- \*TIME VARIATION (ONLY USED FOR COSMIC RADIATION OR FUNDAMENTAL CONSTANTS)
- \*TIME-OF-FLIGHT (FAST LOGIC, TIME-OF-FLIGHT)
- TIME-TO-DIGITAL CONVERTER (FAST LOGIC, TIME-OF-FLIGHT)
- TIN
- TITANIUM
- \*TOKYO ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)
- TOLLER POLE MODEL ('PARTIAL WAVE' AND 'ANALYTIC PROPERTIES')
- \*TOMSK ES (ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)
- TOPLOGICAL CROSS SECTION (CHANNEL CROSS SECTION)
- \*TOPLOGICAL EXPANSION (DUALITY, TOPOLOGICAL EXPANSION)
- TOTAL CROSS SECTION (SEE ALSO 'CHANNEL CROSS SECTION')
- TOTAL-ABSORPTION COUNTER
- TOUSCHEK EFFECT (BEAM INSTABILITY)
- TPC (TIME-TO-PULSE-HEIGHT CONVERTER; 'FAST LOGIC')
- TRACK CHAMBER (SEE 'TRACK SENSITIVE')
  - TRACK DATA ANALYSIS
- TRACK FOLLOWING (USE 'TRACK DATA ANALYSIS, ON-LINE' OR 'TRACK DATA ANALYSIS, OFF-LINE')
- TRACK MEASURING (USE 'TRACK DATA ANALYSIS, ON-LINE' OR 'TRACK DATA ANALYSIS, OFF-LINE')
  - TRACK PHOTOGRAPHY
- \*TRACK SENSITIVE (ONLY USED FOR TRACKS VISUALIZED IN MATTER, LIKE 'PLASTICS, TRACK SENSITIVE' OR 'GLASS, TRACK SENSITIVE')
- TRACKS
- TRAJECTORY (SEE 'REGGE POLES' OR 'REGGE CUT'). NOT USED FOR PARTICLE TRAJECTORY)
- TRANSFORMATION (NOT USED IN CONNECTION WITH 'RENORMALIZATION GROUP')
- \*TRANSITION
- \*TRANSITION RADIATION (SEE 'COUNTERS AND DETECTORS, TRANSITION RADIATION'. NOT USED FOR RADIATIVE DECAY)
- TRANSITION RADIATION COUNTER (USE 'COUNTERS AND DETECTORS, TRANSITION RADIATION')
- TRANSMISSION (USE 'ABSORPTION')
- \*TRANSURANIUM (ELEMENTS, TRANSURANIUM)
- \*TRANSVERSE (RESTRICTED USE, SEE ALSO 'TRANSVERSE MOMENTUM')
- TRANSVERSE BEAM OSCILLATION (BETATRON OSCILLATION)
- TRANSVERSE MOMENTUM
- TREE APPROXIMATION (CURRENT ALGEBRA, EFFECTIVE LAGRANGIANS)
- TREIMAN-YANG TEST (DECAY, ANGULAR DISTRIBUTION)
- TRIANGLE ANOMALY
- TRIANGLE GRAPH (FEYNMAN GRAPH)
- TRIGGERING (FAST LOGIC, COINCIDENCE)
- TRIPLE-POMERON COUPLING (POMERON, COUPLING)
- \*TRIPLE-REGGE LIMIT (INCLUSIVE REACTION, TRIPLE-REGGE LIMIT)
- \*TRIPLET ("MODEL, TRIPLET" AND 'QUARK')
- TRITIUM
- \*TRIUMF CYCL (AT VANCOUVER. ONLY FOR EXPERIMENTAL RESULTS GAINED THERE)
- TRUSS GRAPH (APPROXIMATION, LADDER)
- TUNE SHIFT (SEE 'RF SYSTEM' OR 'BEAM OPTICS')
- TUNGSTEN
- TWO-BODY (USE ONLY AS 'EXCHANGE, TWO-PARTICLE')
- TWO-COMPONENT (POSSIBLY 'DIFFRACTION, DISSOCIATION' AND 'MODEL, MULTIPERIPHERAL')
- \*TWO-COMPONENT NEUTRINO (MODEL, TWO-COMPONENT NEUTRINO)
- \*TWO-PARTICLE (EXCHANGE, TWO-PARTICLE)
- \*TWO-PHOTON (EXCHANGE, TWO-PHOTON)
- \*TWO-PION (EXCHANGE, TWO-PION)

\*U(N) (SYMMETRY, U(N))  
 \*U(1) (SYMMETRY, U(1))  
 \*U(12) (SYMMETRY, U(12))  
 U(2375)  
 \*U(3) (SYMMETRY, U(3))  
 \*U(3) X U(3) (SYMMETRY, U(3) X U(3))  
 \*U(4) (SYMMETRY, U(4))  
 \*U(4) X U(4) (SYMMETRY, U(4) X U(4))  
 \*U(6) (SYMMETRY, U(6))  
 \*U(6,6) (SYMMETRY, U(6,6))  
 \*U-SPIN (QUANTUM NUMBER, L-SPIN)  
 -UIR (GROUP THEORY)  
 -ULTRAVIOLET DIVERGENCE (RENORMALIZATION)  
 -UNIFIED FERMION (MODEL, FERMION)  
 UNIFIED FIELD THEORY (KINDS OF INTERACTION WHICH  
 ARE UNIFIED ARE ADDED)

UNITARITY (RESTRICTED USE)  
 -UNITARY IRREDUCIBLE REPRESENTATION (GRUPP  
 THEORY)  
 -UNIVERSAL FERMI INTERACTION (MODEL, WEAK  
 INTERACTION)  
 \*UNIVERSALITY ('ELECTRON MUON, UNIVERSALITY' OR  
 'WEAK INTERACTION, UNIVERSALITY' OR 'STRONG  
 INTERACTION, UNIVERSALITY' OR 'ELECTROMAGNETIC  
 INTERACTION, UNIVERSALITY')  
 \*UR-CITON (MODEL, UR-CITON)  
 URANIUM  
 \*URBANA BEATRON (ONLY FOR EXPERIMENTAL RESULTS  
 GAINED THERE)  
 \*URBARYON (MODEL, URBARYON)

-V-A THEORY (MODEL, WEAK INTERACTION)  
 \*V-SPIN (QUANTUM NUMBER, V-SPIN)  
 -VACUUM CHAMBER (SEE 'VACUUM SYSTEM')  
 -VACUUM EXCHANGE (EXCHANGE, VACUUM QUANTUM NUMBER)  
 \*VACUUM POLARIZATION (FIELD THEORY, VACUUM  
 POLARIZATION)  
 \*VACUUM QUANTUM NUMBER (EXCHANGE, VACUUM  
 QUANTUM NUMBER)  
 \*VACUUM STATE (FIELD THEORY, VACUUM STATE)  
 VACUUM SYSTEM  
 -VACUUM TECHNIQUES (USE 'VACUUM SYSTEM')  
 \*VALENCE (MODEL, VALENCE)  
 \*VALIDITY TEST (RESTRICTED USE FOR GENERAL  
 TESTS BUT NOT FOR INTERPRETATIONS. EXAMPLE:  
 'QUANTUM ELECTRODYNAMICS, VALIDITY TEST')  
 \*VAN HOVE (MODEL, VAN HOVE)  
 -VAN HOVE PLOT (USE 'MULTIDIMENSIONAL ANALYSIS,  
 LONGITUDINAL PHASE SPACE')  
 VANADIUM  
 \*VARIABLE MASS (MODEL, VARIABLE MASS)  
 -VARIABLE-ENERGY CYCLOTRON (CYCLOTRON)  
 \*VECTOR ('CURRENT, VECTOR' (RESTRICTED USE))  
 -VECTOR BOSON (SEE 'INTERMEDIATE BOSON' OR  
 'VECTOR MESON')  
 -VECTOR CURRENT (SEE 'CURRENT, VECTOR' OR  
 'CONSERVED VECTOR CURRENT' OR 'CONSERVED A-V  
 CURRENT' OR 'PCAC' OR 'PCVC')

\*VECTOR DOMINANCE (MODEL, VECTOR DOMINANCE)  
 VECTOR MESON  
 VECTOR MESON BARYON RESONANCE  
 VECTOR MESON DEUTERON  
 -VECTOR MESON EXCHANGE (EXCHANGE, VECTOR MESON)  
 VECTOR MESON INTERMEDIATE BOSON  
 VECTOR MESON LIGHT NUCLEUS  
 VECTOR MESON NUCLEON  
 VECTOR MESON NUCLEUS  
 VECTOR MESON QUARK  
 VECTOR MESON VECTOR MESON  
 -VECTOR-AXIAL-VECTOR THEORY (WEAK INTERACTION)  
 -VELOCITY SPECTROMETER (FAST LOGIC,  
 TIME-JF-FLIGHT)  
 \*VENEZIANO (MODEL, VENEZIANO)  
 VERTEX FUNCTION  
 -VERTEX SPECTROMETER (SEE 'HYBRID SYSTEM')  
 VIOLATION  
 \*VIKASORU (MODEL, VIRASORU)  
 -VIRASORU ALGEBRA (ALGEBRA, VIRASORU)  
 -VIRTUAL (NOT USED)  
 -VIRTUAL PHOTOPRODUCTION (USE 'ELECTROPRODUCTION';  
 FOR Q-SQUARED  $\rightarrow 0$  ADD 'PHOTOPRODUCTION')  
 \*VON NEUMANN (ALGEBRA, VON NEUMANN)  
 \*VORTEX (SEE 'FIELD THEORY, VORTEX')

\*W\* (ALGEBRA, W\*)  
 -W-SPIN (SYMMETRY, SU(6)\*)  
 -WALECKA MODEL (NUCLEAR PROPERTIES)  
 \*WANG (MODEL, WANG)  
 \*WARD IDENTITY ('FIELD THEORY, WARD IDENTITY'; SEE  
 ALSO 'WARD-TAKAHASHI IDENTITY')  
 \*WARD-TAKAHASHI IDENTITY (QUANTUM ELECTRODYNAMICS,  
 WARD-TAKAHASHI IDENTITY)  
 WATER  
 -WATSON-SUMMERFIELD TRANSFORMATION (REGGE POLES)  
 -WAVE EQUATION (QUANTUM MECHANICS)  
 -WAVE FUNCTION (QUANTUM MECHANICS)  
 -WAVE PACKET (QUANTUM MECHANICS)  
 -WAVEGLIDE (SEE 'RF SYSTEM' OR 'LINEAR  
 ACCELERATOR' OR 'MICROWAVES')  
 -WEAK ABSORPTION (MODEL, ABSORPTION)  
 -WEAK COUPLING (PERTURBATION THEORY)  
 \*WEAK CURRENT  
 WEAK INTERACTION (ALSO 'MODEL, WEAK  
 INTERACTION')  
 \*WEINBERG (FIELD THEORETICAL MODEL, WEINBERG)  
 \*WEINBERG ANGLE (WEAK INTERACTION,  
 WEINBERG ANGLE)

-WEIZSAECKER-WILLIAMS (APPROXIMATION,  
 EQUIVALENT PHOTON)  
 -WEISS-ZUMINO (FIELD THEORY, SUPERSYMMETRY)  
 \*WEYL (ALGEBRA, WEYL)  
 \*WICK-CUTKOSKY (MODEL, WICK-CUTKOSKY)  
 \*WIDE-ANGLE ('SPECTROMETER, WIDE-ANGLE' OR, E.G.,  
 'PRODUCTION, WIDE-ANGLE')  
 \*WIDE-GAP (SPARK CHAMBER, WIDE-GAP)  
 \*WIDTH (USAGE IN ACCORDANCE WITH ROSENFIELD TABLES)  
 -WIGHTMAN FIELDS (AXIOMATIC FIELD THEORY)  
 -WIGHTMAN FUNCTION (AXIOMATIC FIELD THEORY)  
 \*WIGNER-WEISSKOPF (MODEL, WIGNER-WEISSKOPF)  
 -WILLIAMS-WEIZSAECKER (APPROXIMATION,  
 EQUIVALENT PHOTON)  
 -WILSON EXPANSION (FIELD THEORY, SHORT-DISTANCE  
 BEHAVIOR)  
 \*WIRE (SPARK CHAMBER, WIRE)  
 \*WKB (APPROXIMATION, WKB)  
 -WOLF METHOD (CORRECTION, OFF-SHELL)  
 -WOODS-SAXON ('POTENTIAL' OR 'POTENTIAL  
 SCATTERING')  
 \*WU-YANG (MODEL, WU-YANG)

X X(2830)  
-X(4100) STRUCTURE (PSI(4100) STRUCTURE)  
XENON  
XI  
XI BARYON RESONANCE  
XI DEUTERON  
XI INTERMEDIATE BOSON  
XI LIGHT NUCLEUS  
XI NUCLEUS  
XI QUARK  
XI VECTOR MESON  
XI XI  
XI(1530)  
XI(1820)  
XI(1940)  
XI-  
XI- ANTI-XI-

XI- BARYON RESONANCE  
XI- DEUTERON  
XI- INTERMEDIATE BOSON  
XI- LIGHT NUCLEUS  
XI- NUCLEUS  
XI- QUARK  
XI- XI-  
XI0  
XI0 BARYON RESONANCE  
XI0 DEUTERON  
XI0 INTERMEDIATE BOSON  
XI0 LIGHT NUCLEUS  
XI0 NUCLEUS  
XI0 QUARK  
XI0 XI-  
-XI0 MESON RESONANCE (ETA'(958))

Y ~Y\* (BARYON RESONANCE, HYPERCN)  
\*YANG (MODEL, YANG)  
-YANG-FELDMAN EQUATIONS (FIELD THEORY)  
\*YANG-MILLS (FIELD THEORETICAL MODEL, YANG-MILLS)  
\*YIELD (IN COMBINATION WITH PARTICLES. ONLY  
WHERE YIELD IS GIVEN WITHOUT CROSS SECTIONS)

YTTERBIUM  
YTTRIUM  
\*YUKAWA (POTENTIAL, YUKAWA)

Z \*Z\* (BARYON, Z\*)  
-ZACHARIASEN MODEL (FIELD THEORETICAL MODEL)  
-ZGS ACCELERATOR ('PROTON SYNCHROTRON'. FOR  
EXPERIMENTAL RESULTS USE 'ARGONNE PS')  
-ZIMMERMANN MODEL (FIELD THEORETICAL MODEL)

ZINC  
ZIRCONIUM  
-ZWEIG RULE (SELECTION RULE,  
IZUKA-OKUBU-ZWEIG)