arXiv:1202.1629v1 [hep-ph] 8 Feb 2012

2010 European School of High-energy Physics

Raseborg, Finland , 20 Jun - 3 Jul 2010

Proceedings - CERN Yellow Report CERN-2012-001

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The European School of High-Energy Physics is intended to give young physicists an introduction to the theoretical aspects of recent advances in elementary particle physics. These proceedings contain lecture notes on the Standard Model of electroweak interactions, quantum chromodynamics, heavy ion physics, physics beyond the Standard Model, neutrino physics, and cosmology.

Lectures

arXiv:1201.0537 [pdf, ps, other]
Title: The Standard Model of Electroweak Interactions
Authors: Antonio Pich
Comments: Based on lectures given at the 6th CERN-Fermilab Hadron Collider Physics Summer School (Geneva, 2011), 2010 European School of HEP (Raseborg, Finland), 2010 Int. School on Astroparticle Physics (Zaragoza, Spain), 2010 IDPASC School (Sesimbra, Portugal) and 2009 Int. Summer School and Conference on HEP (Mugla, Turkey, 2009). 52 pages, 38 figures
Journal-ref: CERN-2012-001, pp.1-50
Subjects: High Energy Physics - Phenomenology (hep-ph); High Energy Physics - Experiment (hep-ex)

arXiv:1104.2863 [pdf, other]
Title: QCD for Collider Physics
Authors: Peter Skands
Comments: Lectures from the 2010 European School of High Energy Physics (ESHEP 2010), Raseborg, Finland
Subjects: High Energy Physics - Phenomenology (hep-ph); High Energy Physics - Theory (hep-th)

arXiv:1012.0186 [pdf, ps, other]
Title: Hard Probes in Heavy-Ion Physics
Authors: Thorsten Renk
Comments: Proceedings of the 2010 CERN Summer School, Raseborg (Finland), submitted for publication in a CERN Yellow Report
Subjects: High Energy Physics - Phenomenology (hep-ph)

arXiv:1202.1391 [pdf, other]
Title: Beyond the Standard Model
Authors: A. Pomarol (Barcelona, Autonoma U.)
Comments: 37 pages, contribution to the 2010 European School of High-energy Physics; 20 June - 3 July 2010, Raseborg, Finland
Journal-ref: CERN Yellow Report CERN-2012-001, pp. 115-151

Subjects: High Energy Physics - Phenomenology (hep-ph)

arXiv:1201.6158 [pdf, other]
Title: Neutrino Physics
Authors: Andrea Romanino (SISSA, Trieste and INFN, Trieste)
Comments: 30 pages, contribution to the 2010 European School of High-Energy Physics; 20 June - 3 July 2010, Raseborg, Finland
Journal-ref: CERN Yellow Report CERN-2012-001, pp. 153-182
Subjects: High Energy Physics - Phenomenology (hep-ph)

arXiv:1012.5204 [pdf, ps, other]
Title: Physics of the Cosmic Microwave Background and the Planck Mission
Authors: Hannu Kurki-Suonio
Comments: Proceedings of the 2010 CERN Summer School, Raseborg (Finland), submitted for publication in a CERN Yellow Report
Subjects: Cosmology and Extragalactic Astrophysics (astro-ph.CO)

arXiv:1201.6164 [pdf, other]
Title: Cosmological inflation
Authors: K. Enqvist (Univ. Helsinki and Helsinki Inst. Phys.)
Comments: 9 pages, contribution to the 2010 European School of High-energy Physics; 20 June - 3 July 2010, Raseborg, Finland
Journal-ref: CERN Yellow Report CERN-2012-001, pp. 207-215
Subjects: General Relativity and Quantum Cosmology (gr-qc)