

FENOMENE RARE IN FIZICA PARTICULELOR LA ENERGII INALTE

FRFP ID_ 806 Contract 253/01.10.2007

Obiective generale

- Participare in studii R&D pentru calorimetrele din zona ILC foarte inainte si simulari de fizica
- Realizarea de studii R&D pentru proiectul NA48/3 (NA62)
- Participare in analiza primelor date colectate cu detectorul LHCb
- Pregatirea platformei de lucru in vederea analizei datelor (simulate si reale din cadrul proiectelor si experimentelor). Introducerea cluster-lui de computere existent in circuitul de Grid si obtinerea inregistrarii ca 'site'

Rezultate

Articole in reviste cotate ISI/ Articles in ISI Journals

- A. Augusto Alves jr, , C.Coca,..D.D Dumitru,..D.T Dumitru,..M.Orlandea,..R. Petrescu, .T.Preda...A.Rosca, .V.I Rusu, et al. (LHCb collaboration), *The LHCb Detector at the LHC*, JINST 3 S08005, 2008 <http://iop.org/EJ/Jinst/>
- C.Coca, W. Lohmann, M.Orlandea, A.Sapronov, E.Teodorescu, : *Expected electromagnetic and neutron doses for the BeamCal at ILD*, Rom.J.Phys , vol. 55, nos. 7-8, 2010 (in press)
- M.Orlandea, C.Coca, L.Dumitru, E.Teodorescu, *High-Performance Computing System for high energy physics* , Rom.J.Phys(accepted for publication, 2009)

Articole in curs de finalizare ce urmeaza a fi trimise pentru publicare in reviste cotate ISI/Articles to be submitted for publication in ISI Journals

- K.Afanaciev,..C.Coca, M. Orlandea, ...T.Teodorescu,..et al.,(Fcal collaboration), "*R &D for Very Forward Calorimeters at the ILC Detector*," to be submitted to JINST
- A. Augusto Alves jr,..C.Coca,..L.Dumitru ,...M.Orlandea,..E.Teodorescu,..et al.,(LHCb Collaboration), "*V⁰ – production in pp collisions at 900 GeV c.m energy*", to be submitted to Eur.Phys.J.C/Phys.Lett.B

Prezentari la conferințe internaționale cu proceedings/Contributions to international conferences

- C.Coca, M.Orlandea, A.Rosca, M. Stanescu-Bellu, *A Distributed Computing System dedicated to High Energy Physics Experiments*, Proceedings of the IASK International Conference -E- Activity and Leading Technologies Dec. 2007", ISBN: 978-972-99397-5-4, (2007)323-327

Lucrari publicate in reviste de circulatie internationala necotate ISI si baze date

- Gerald Aarons, Toshinori Abe,....C Coca,...M C Orlandea, .E Teodorescu, Akio Terashima,..et al., (Ties Behnke, Chris Damerell, John Jaros, Akiya Miyamoto (eds.)),. *ILC Reference Design Report Volume 4 – Detectors*, FERMILAB-APC, Dec 2007. e-Print: arXiv:0712.2356 [physics.ins-det]; cernrep/2007-006_v4, 211p, 2007
http://doc.cern.ch/yellowrep/2007/2007-006_v4/2007-006_v4.pdf
- ILD/ILC Collaboration(...C. Coca, M. Orlandea, E. Teodorescu et al.,) *International Large Detector Letter of Intent ILD-LoI*, 2009 <http://www.ilcild.org/documents/ild-letter-of-intent/LOI.pdf/view>, validated by IDAG , 2009

Prezentari orale la workshop-& meetings /oral contributions to workshops&collaboration meetings

- "Energy spectra and particle distributions in BeamCal at the ILC", (presented by E. Teodorescu), <http://www-zeuthen.desy.de/ILC/fcal/>; *FCAL Collaboration Workshop*, 6-7 May , 2008, Krakow, POLAND
- "FCAL Report", (presented by W. Lohmann for Fcal collab.) LCWS08 and ILC08 Workshop, Chicago 2008
<http://ilcagenda.linearcollider.org/contributionDisplay.py?contribId=129&sessionId=22&confId=2628>
- *Doses and bunch by bunch fluctuations in BeamCal at the ILC*, (presented by E. Teodorescu) <http://www-zeuthen.desy.de/ILC/fcal/>, *FCAL Collaboration Meeting, 29-30 June , 2009, DESY-Zeuthen, Germany*
- "High Performance Computing system for High Energy Physics-RO-15- NIPNE", (presented by Laurentiu Dumitru) FCAL Collaboration Meeting CERN, Oct 2009
<http://indico.cern.ch/getFile.py/access?contribId=23&resId=1&materialId=slides&confId=64383><http://www-zeuthen.desy.de/ILC/fcal/>
- "QD0@CLIC: Implementation of QD0 in Mokka", (presented by E. Teodorescu), Fcal Collaboration meeting April 12-13, 2010, Krakow, Poland <http://www-zeuthen.desy.de/ILC/fcal/>
- "Background Simulations in BeamCal at the ILC", prented by E. Teodorescu at "Trans-European School of High Energy Physics TES09, Zakopane, Poland, July 7-15, 2009,
<http://events.lal.in2p3.fr/TESchool09/etudiants-presentations/tuesday/presentations.html>

Lucrare masterat:/Master Thesis

E. Teodorescu , "Simulations of Electromagnetic and Hadronic Background in BeamCal at the ILC", lucrare masterat , 2008