



Contribution ID : **1039**

Type : **Oral**

Pion production in proton- and pion-carbon collisions at 12 GeV/c measured with HARP

Monday, 9 July 2007 12:53 (0:12)

Abstract content

Motivated by the importance of the measurement of p+C and pi+C interactions for tuning hadronic interaction models used in neutrino flux and extensive air shower simulations, we analyze pion production in p+C and pi+C reactions at 12GeV/c measured in the fixed target experiment HARP at CERN-PS. We present momentum spectra of positive and negative pions in the momentum range from 0.5GeV/c to 8.0GeV/c and angular range from 30mrad to 210mrad. The results are compared with predictions of frequently used hadronic interaction models and a Sanford-Wang parametrisation is fit to the data.

If this papers is presented for a collaboration, please specify the collaboration

and the HARP Collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 4 (HE part 1), pages 683-686

Primary author(s) : Mrs. MEURER, Christine (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe)

Co-author(s) : Prof. BLÜMER, Johannes (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe); Dr. ENGEL, Ralph (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe); Dr. HAUNGS, Andreas (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe); Dr. ROTH, Markus (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe)

Presenter(s) : Dr. ENGEL, Ralph (Forschungszentrum Karlsruhe, Karlsruhe Institute of Technology, 76021 Karlsruhe)

Session Classification : HE 3.1

Track Classification : HE.3.1