

Selected Abstracts from Physical Review D

Abstracts of papers published in Physical Review D which may be of interest to our readers are printed here.

Polarization in inclusive Λ and $\bar{\Lambda}$ production at large p_T . B. Lundberg,* R. Handler, L. Pondrom, M. Sheaff, and C. Wilkinson[†], *Physics Department, University of Wisconsin, Madison, Wisconsin 53706*; J. Dworkin,[‡] O. E. Overseth, and R. Rameika*, *Physics Department, University of Michigan, Ann Arbor, Michigan 48109*; K. Heller and C. James*, *School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455*; A. Beretvas,* P. Cushman,[§] T. Devlin, K. B. Luk,** G. B. Thomson, and R. Whitman^{††}, *Department of Physics and Astronomy, Rutgers-The State University of New Jersey, Piscataway, New Jersey 08855-0849*. (Received 2 June 1989)

A study of the inclusive polarization of Λ hyperons produced by 400-GeV/c protons incident on nuclear targets has been performed at Fermilab. The polarization P of the Λ has been mapped over a large range of x_F and p_T to good precision for p_T up to 3.8 GeV/c. The magnitude of the polarization at fixed x_F rises with p_T to a plateau at about 1 GeV/c, and the size of the plateau increases monotonically with x_F . The $\bar{\Lambda}$ were found to be unpolarized for $p_T < 2.4$ GeV/c. A target-nucleus dependence for the Λ polarization has been observed. [Phys. Rev. D **40**, 3557 (1989)]

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Hadronization from supercooled baryon-rich quark-gluon plasma. Alv K. Holme, Espen F. Staubo, and László P. Csernai, *Department of Physics, University of Bergen, Allegaten 55, N-5007 Bergen, Norway*; Eivind Osnes, *Department of Physics, University of Oslo, Blindern, N-0316 Oslo 3, Norway*; D. Strottman, *Theoretical Division, Los Alamos National Laboratory, Los Alamos, New Mexico 87545*. (Received 15 May 1989)

A simple phenomenological model for the nuclear equation of state is introduced and the dependence of the phase boundaries on the parameters is discussed. The equations for relativistic shocks are then applied to study the compression of hadronic matter and the hadronization of supercooled baryon-rich plasma. The results show little sensitivity to the different parametrizations of the hadronic equation of state. However, they may be sensitive to dynamic properties such as the hadronization rate. [Phys. Rev. D **40**, 3735 (1989)]