

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.

Measurement of a mixed spin-spin correlation parameter for np elastic scattering. R. Garnett* and M. Rawool[†], Argonne National Laboratory, Argonne, Illinois 60439 and New Mexico State University, Las Cruces, New Mexico 88003; V. Carlson,[‡] D. Hill, K. F. Johnson,[‡] D. Lopiano, Y. Ohashi, T. Shima, H. Spinka, R. Stanek, D. Underwood, and A. Yokosawa, Argonne National Laboratory, Argonne, Illinois 60439; M. Beddo, G. Burleson, J. A. Faucett,[‡] and G. Kyle, New Mexico State University, Las Cruces, New Mexico 88003; H. Shimizu, Tokyo Institute of Technology, Okayama Meguro, Tokyo 152, Japan; G. Glass, S. Nath, and L. C. Northcliffe, Texas A&M University, College Station, Texas 77843; J. J. Jarmer, Los Alamos National Laboratory, Los Alamos, New Mexico 87545; R. H. Jeppesen, University of Montana, Missoula, Montana 59801; G. E. Tripard, Washington State University, Pullman, Washington 99164. (Received 27 April 1989)

The mixed spin-spin correlation parameter $C_{\sigma\sigma} \approx 0.5C_{SS} - 0.8C_{SL}$ for np elastic scattering was measured for incident-neutron-beam kinetic energies of 484, 634, and 788 MeV over the center-of-mass angular range 75° – 180° . These $C_{\sigma\sigma}$ data are important for determining the $I=0$ nucleon-nucleon amplitudes and provide strong constraints on the phase-shift solutions. It was found that the 1P_1 , 3S_1 , and 3D_1 isospin-0 partial waves are most strongly affected. [Phys. Rev. D **40**, 1708 (1989)]

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