

Comments

Comments are short papers which comment on papers of other authors previously published in the Physical Review. Each Comment should state clearly to which paper it refers and must be accompanied by a brief abstract. The same publication schedule as for regular articles is followed, and page proofs are sent to authors.

Slope parameter and zero trajectories in π^-p scattering

G. Höhler and I. Sabba Stefanescu

Institut für Theoretische Kernphysik der Universität Karlsruhe, Karlsruhe, Germany

(Received 27 December 1979)

This paper is a comment on several recent papers by Parida and collaborators on diffraction scattering. It is pointed out that these authors use assumptions on πN zero trajectories which differ strongly from results derived from phase shifts, and that a more critical attitude towards published data for the slopes at $t = 0$ is needed. The proposed applications of the conformal-mapping method are criticized.

Reply to "Slope parameter and zero trajectories in π^-p scattering"**M. K. Parida***Post-Graduate Department of Physics, Sambalpur University, Jyoti Vihar, Burla 768017, Orissa, India**(Received 27 October 1980)*

Shortcomings of the new zero trajectories of Höhler and Sabba Stefanescu are pointed out. The errors in the imaginary part could be large enough to make their results consistent with at least one real zero for every energy. Whether or not a real zero exists, it is possible to have convergent polynomial expansion (CPE) without any spurious cut with (very nearly) the same ansatz for the forward slope. We disagree with most of the criticisms on the applications of CPE to scaling without any spurious cuts. Even if one uses slope values obtained from parametrizations in the Coulomb-nuclear interference region, scaling is described in an excellent fashion.