

Singularities of Zero Trajectories of Scattering Amplitudes

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Abstract. We discuss the possible types of singularities of zero trajectories of scattering amplitudes and give examples from πN scattering. Special emphasis is placed on the branch points of the zero trajectories that lie close to the physical region. Their appearance is related to small but typical deviations from the zero pattern predicted by dual models. We show how a study of the behaviour of the zero trajectories in the neighbourhood of such points can be used to reduce the reflection ambiguity of phase shift analysis.

THE π K PHASE SHIFTS AND TWO-VARIABLE ANALYTICITY

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We show how Weierstrass's preparation theorem can be used to remove the discrete ambiguities of a recent phase shift analysis in π K scattering.