THE FEYNMAN PROPAGATOR IN SOME MODEL SINGULAR SETTINGS

Speaker: Dean Baskin
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Time：Fri, Oct. 7, 10:00-11:00 am

Venue: Zoom: 618-038-6257, Password: SCMS

Abstract: In this talk I will describe the existence and asymptotic properties of the Feynman propagator in three model singular settings: the scalar wave equation on cones, the scalar wave equation on Minkowski space with an inverse square potential, and the massless Dirac equation in 3 dimensions coupled to a Coulomb potential. The proof combines techniques of Gell-Redman – Haber – Vasy as well as prior work with Booth, Gell-Redman, Marzuola, Vasy, and Wunsch. One novelty of the proof is that it does not rely on Wick rotation (though a shadow of it survives in some special function analysis at infinity).