Analysis Seminar

Cauchy problem in general relativity

By

Alper Akyuz
(Bilkent)

Abstract: The General Theory of Relativity is one of the best tested physical theories with applications in astrophysics, cosmology and gravitation. The Einstein Field Equations which relate the matter/energy content of universe with curvature of spacetime is a set of 10 coupled non linear partial differential equations, in this talk the Cauchy problem for the Einstein field equations will be stated and the initial value formulation of the Einstein Field Equations, which plays a foundational role in applying the theory of quasilinear Hyperbolic PDEs to General relativity will be discussed.

Date: Monday, April 28, 2025
Time: 15:30
Place: Mathematics Seminar Room, SA – 141