Analysis Seminar

Pluricomplex Green Functions on Stein Manifolds: A Functional Analysis Point of View

By

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Abstract: In this talk we will look at the existence of (non-trivial) pluricomplex Green functions for Stein manifolds from a functional analysis point of view. For a Stein manifold M, let us denote by O(M); the Fréchet space of analytic functions on M equipped with the topology of uniform convergence on compact subsets of M. After giving some preliminary information and relevant denitions, we will look at the relationship between existence of pluricomplex Green functions for M and the diametral dimension of O(M): We will then give a characterization of pluri-Greenian Stein manifolds through a local, controlled approximation type condition, which can be thought as a local version of the linear topological invariant Ω of D.Vogt. Some consequences of these results will be considered,of course, if time permits.

Date: April 14, 2021
Time: 13:30-14:30, GMT+3.
Place: ZOOM
To request the event link, please send a message to goncha@fen.bilkent.edu.tr