Analysis Seminar

Zahorski's decomposition

By

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Abstract: Different from the complex case, real infinitely differentiable functions are not analytic in general. In this presentation, for a fixed infinitely differentiable real function f on the line, we consider two types of possible singularities, where f is not analytic.
Then we present a proof of Zahorski's theorem, which gives a decomposition of the line into three parts: analytic points, defect points, and points of divergence.
Finally, we show that any decomposition of the line into three parts that satisfies certain conditions is Zahorski's decomposition for some infinitely differentiable function.

Date: Thursday, April 21, 2022
Time: 18:00-19:00, GMT+3
Place: ZOOM
To request the event link, please send a message to goncha@fen.bilkent.edu.tr