



ANALYSIS SEMINARS

Herglotz Representation Theorems and Some Applications

By

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Abstract: We first recall two classical theorems of Gustav Herglotz on integral representations of positive harmonic functions and of holomorphic functions with positive real part. As a first application, we present a short proof of Caratheodory's Theorem for characterization of holomorphic functions with positive real part in terms of the Toeplitz kernel of the Taylor coefficients of the functions. After recalling the Stieltjes Inversion Formula we provide a second application to the spectral theory of linear operators in indefinite inner product spaces.

Date: Tuesday, December 4, 2018

Time: 16:00 – 17:00

Place: SA141 Mathematics Seminar Room

* Tea and cookies will be served before the talk. All are most cordially invited.