

MATERIALS WORKING GROUP -- MONDAY APRIL 9, 2018

TIME AND ROOM: 10am, WWH 1314

TITLE: On the extrapolation of analytic functions

SPEAKER: Narek Hovsepyan (Temple Univ)

ABSTRACT: Given the measurements on $[-1,1]$ of an analytic function in a halfplane, with error ϵ , we give an upper bound for the possible error at the extrapolation point $z > 1$. Further, we describe the worst case function, attaining that error up to a constant, as a solution to an integral equation. One potential application is to reconstruction of the complex electromagnetic permittivity function of a material, given its experimentally measured values on a finite frequency interval.