



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Special Guest Lecture

Room 290C ,Ziskind Building  
on Wednesday, Nov 22, 2017  
at 16:15

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The pressure function for infinite equilibrium

Abstract:

Assume that  $(X, f)$  is a dynamical system and  $\phi$  is a real non negative potential such that the corresponding  $f$ -invariant measure  $\mu_\phi$  measure is infinite. Under assumptions of good inducing schemes, we give conditions under which the pressure of  $f$  for a perturbed potential  $\phi + s\psi$  relates to the pressure of the induced system term.

This extends some of Sarig's results to the setting of infinite "equilibrium states".

In addition, limit properties of the family of measures  $\mu_{\phi + s\psi}$  as  $s \rightarrow 0$  are studied and statistical properties (e.g. correlation coefficients) under the limit measure are derived. I will discuss several examples.

This is based on joint work with H. Bruin and M. Todd.