1135-41-1330   **Palle Jorgensen*** (`palle-jorgensen@uiowa.edu`), Dept Mathematics MLH, University of Iowa, Iowa City, IA. *Transfer operators and their applications.*

By "transfer operator" I mean a family of operators which arise in a host of areas of applications; in dynamics, ranging from signal/image representations to kernel learning, from multi-resolution wavelet theory, to measurable dynamics, from fractals to signal analysis, and from Markov operators and potential theory, both in the discrete as well as continuous settings. In many problems, an initial function space is often not given as a feature space, – its realization as a Hilbert space only comes much later; i.e., the appropriate transfer operators often arise in instances where a Hilbert space is not given directly, and certainly not at the outset. In any case, the spectral theory we consider here differs from that of more traditional settings where transfer operators are also used, as will be outlined in the talk. (Received September 21, 2017)