

Operator Algebras Seminar

Special Meetings

Organizer: W. Arveson

Tuesday, 2:10–3:30pm, 891 Evans

7 August **Ilan Hirshberg**, Ben Gurion University

Izumi's work on contraction semigroups that perturb the shift semigroup on $L^2(0, \infty)$

Recently, there has been important progress on the construction and classification of semigroups of endomorphisms of $\mathcal{B}(H)$ by Izumi and Izumi-Srinivasan. This series of lectures will focus on a paper of Izumi which solves a problem about contraction semigroups that is key to these developments. Let $S = \{S_t : t \geq 0\}$ be the shift semigroup of isometries acting on $L^2(0, \infty)$. The problem is to characterize and classify all contraction semigroups $T = \{T_t : t \geq 0\}$ acting on $L^2(0, \infty)$ satisfying $T_t^* S_t = \mathbf{1}$, $t \geq 0$, together with the requirement that $T_t - S_t$ should be Hilbert-Schmidt for all $t \geq 0$.

14 August **Ilan Hirshberg**, Ben Gurion University

Izumi's work on contraction semigroups that perturb the shift semigroup on $L^2(0, \infty)$ II