Mathematisches Oberseminar *PDG und Spektraltheorie* (SoSe 2015).

Date: 18.06.2015.
Time and place: 14:15 in B 134.

Speaker: Rafael Tiedra (Pontifical Catholic University of Chile).
Titel: *Commutator criteria for strong mixing.*

Abstract:
We present new criteria, based on commutator methods, for the strong mixing property of discrete flows $\{U_N\}$ and continuous flows $\{e^{-itH}\}$ induced by unitary operators U and self-adjoint operators H in a Hilbert space $\mathfrak{H}$. Our approach put into evidence a general definition for the topological degree of the maps $N \mapsto U^N$ and $t \mapsto e^{-itH}$ with values in the unitary group of $\mathfrak{H}$. Among other examples, our results apply to skew products of compact Lie groups, time changes of horocycle flows and adjacency operators on graphs.

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