DANIEL JOHNSTONE, University of Toronto

A construction of some Stable Transfer Operators

In this talk I will discuss some recent progress on the construction of Stable Transfer Operators $\mathfrak{S}^\phi$ associated to an L-embedding $\phi : {}^L\mathsf{GL}_n \to {}^L G$. While many such explicit constructions remain out of reach, I will discuss a manner in which this general case can be largely reduced to an understanding of the case of an embedding $\phi : {}^L S \to {}^L G$ for a maximal torus S of GL_n. This method relies on building sections for the transfer maps associated to the embeddings ${}^L S \to {}^L\mathsf{GL}_n$ for each maximal torus S of GL_n, in addition to a related family of related maps. As a guiding example, I will give a construction of the transfer associated to the diagonal embedding ${}^L\mathsf{GL}_n \to {}^L\mathsf{GL}_n \times \mathsf{GL}_n$ which ought to be considered as a type of non-abelian convolution on the space of orbital integrals on the Steinberg-Hitchin base of GL_n.