

Probabilistic Operator Algebra Seminar

Organizer: Dan Virgil Voiculescu

Monday, 9:00–10:30 am, to attend via Zoom email David Jekel (daj@math.ku.dk) remote

May 11 **Otte Heinaevaara**, Caltech

Convolution comparison measures

We introduce a new functional comparison between classical and free convolutions the expectation of function f with respect to classical convolution (of two compactly supported probability measures) is larger than the expectation with respect to free convolution, as long as the fourth derivative of f is non-negative. The comparison is based on the existence of convolution comparison measures, novel measures on the plane whose positivity depends on a peculiar identity involving Hermitian matrices.