

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

Apr 20 **Zachary Stier**, UC Berkeley

Finite free information inequalities

We establish the finite free analogue to the classical and free Stam inequality, proved via a novel connection between the Jacobian of the finite free convolution map and the score vector (the finite free analogue of the Hilbert transform). Time permitting, we will then discuss using the same technique to prove monotonicity of the finite free Fisher information; applications to finite free entropy monotonicity; and obtaining a result of Shlyakhtenko and Tao in free probability as a limiting instance. Reference: arXiv:2602.15822; joint work with Jorge Garza-Vargas and Nikhil Srivastava.