

# AG Zufallsmatrizen Seminar

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## The Laguerre Unitary Process

We define a new matrix-valued stochastic process with independent stationary increments from the Laguerre Unitary Ensemble, which in a certain sense may be considered a matrix generalisation of the gamma process. We show that eigenvalues of this matrix-valued process forms a spatiotemporal determinantal point process and give an explicit expression for the correlation kernel in terms of Laguerre polynomials. Furthermore, we show that in an appropriate long time scaling limit, this correlation kernel becomes identical to that of Dyson Brownian Motion.

**Wednesday, 12.06.2019, 16:15 Uhr**  
**V3-201**