



**UNIVERSITÄT
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Gap Probability for the Hard Edge Pearcey Process

The hard edge Pearcey process is universal in random matrix theory and many other stochastic models. In this talk, we consider gap probability for the thinned/unthinned hard edge Pearcey process over the interval $(0, s)$.

By working on the relevant Fredholm determinants, we obtain an integral representation of the gap probability via a Hamiltonian related a system of coupled differential equations and the large gap asymptotics.

Moreover, we also establish asymptotic statistical properties of the counting function for the hard edge Pearcey process. Based on joint works with Dan Dai, Shuai-Xia Xu and Luming Yao.

**Wednesday, 22 June 2022,
09:00 via Zoom
www.physik.uni-bielefeld.de**