Dan Dai (City University of Hong Kong) - *The distribution for the maximal height of non-intersecting Bessel paths*

Consider N non-intersecting Bessel paths starting at $x = a \ge 0$, and conditioned to end at the origin x = 0. When N is fixed, we derive the explicit formula of the distribution function for the maximum height. Depending on the starting point a > 0 or a = 0, the distribution functions are given in terms of the Hankel determinants associated with the multiple discrete orthogonal polynomials or discrete orthogonal polynomials, respectively. Some insights about the distribution when N tends to infinity are also discussed.