

**Daniel Hug** (Mathematisches Institut, Germany)

Title: On the limit shape of the zero cell of a Poisson hyperplane tessellation

Abstract: In the early 1940s David G. Kendall conjectured that the shape of the zero cell  $C$  of the random tessellation generated by a standard (stationary and isotropic) Poisson line process in the plane tends to circularity given that the area of  $C \rightarrow \infty$  (or given the area of  $C$  is essentially fixed and the intensity of the line process  $\rightarrow \infty$ ). Recently, R.E. Miles has offered alternative formulations as well as a heuristic proof of the original conjecture. In the talk, we consider the extension of Kendall's problem, to higher dimensions and to anisotropic hyperplane processes. Joint work with Matthias Reitzner and Rolf Schneider.