1035-60-1902 **Gabor Pete*** (`gabor@microsoft.com`), Microsoft Research, One Microsoft Way, Redmond, WA 98052-6399. *Dynamical sensitivity of critical planar percolation, and the Incipient Infinite Cluster.*

Let each site of the triangular lattice (or edge of the $\mathbb{Z}^2$ lattice) have an independent Poisson clock switching between open and closed. So, at any given moment, the configuration is just critical percolation, and almost surely there are only finite open clusters. However, there are random exceptional times at which infinite clusters do exist, as shown for the triangular lattice by Schramm and Steif (2005).

In joint work with Christophe Garban and Oded Schramm, by showing concentration of the Fourier spectrum of critical percolation, we established the existence of exceptional times also for $\mathbb{Z}^2$, and, for the triangular lattice, computed the Hausdorff dimension of their set to be 31/36.

In joint work with Alan Hammond and Oded Schramm, we showed the existence of a natural local time measure on the set of exceptional times, and proved that a typical infinite cluster sampled with respect to this measure coincides with Kesten's Incipient Infinite Cluster. (Received September 20, 2007)