CONTINUUM PERCOLATION IN HIGH DIMENSION

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In a Boolean model in $\mathbb{R}^d$, we throw random balls in the space and we investigate the percolation properties of the union of these balls. Here, the centers are randomly chosen in $\mathbb{R}^d$, with a constant intensity λ, and the radii of distinct balls are i.i.d. with a common distribution ν.

We try to answer to the question: what is the best way to choose the law ν of the random radii to optimize percolation, at least in high dimension ?

Based on a joint work with Jean-Baptiste Gouéré (Université de Tours)