Strongly reinforced Vertex-Reinforced-Random-Walk on the complete graph

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Place **Campus Kirchberg, room B02**

We study Vertex-Reinforced-Random-Walks on the complete graph with weights of the form $w(n) = n^\alpha$, with $\alpha > 1$. Unlike for the Edge-Reinforced-Random-Walk, which in this case localizes a.s. on 2 sites, here we observe various phase transitions, and in particular localization on arbitrary large sets is possible, provided α is close enough to 1. This is joint work with Michel Benaim and Bruno Schapira.