

# Open challenges in hardcore particle systems

Manon Michel

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Hardcore particle systems have embodied a testbed of choice since the first implementations of Markov chain Monte Carlo in the 50's. Even today, the entropic barriers they exhibit are still resisting to the state-of-the-art MCMC sampling methods. During this talk, I will review the recent developments regarding sampling such systems and discuss the dynamical bottlenecks that are yet to solved.