

The Climbing, Diffusion Models and Experiments

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The lecture will be focused on surprising analogies and connections between hard science and normal life. Models applied in physics can be used to describe many natural and social phenomena. For example, climbers on huge walls or at high mountains have similar behavior as a particle overcoming a barrier. The noise facilitates escape through a potential barrier is reminiscent of free climbing with the constraints due to its ethical rules. For example, the first-pass time theory can be used in the analysis of large wall climbing. An analysis of average first-pass time can be investigated to provide the answer about the optimal rope length for climbing the route in the fastest possible way.

The lecture will show how the stochastic process theory provides theoretical tools to describe rock and alpine climbing.