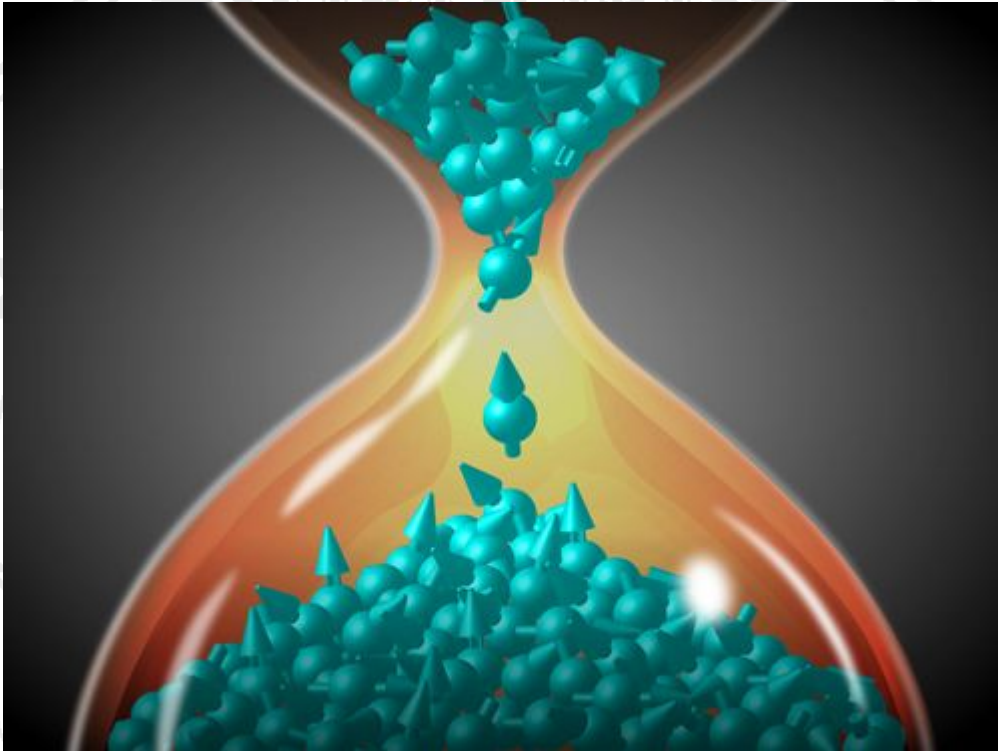


PHYSIKALISCHES KOLLOQUIUM

AM 4. JUNI 2018 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



IRREVERSIBILITY AND THE QUANTUM ARROW OF TIME

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Irreversibility is one of the most intriguing concepts in physics. While microscopic physical laws are perfectly reversible, macroscopic average behavior has a preferred direction in time. According to the second law of thermodynamics, this arrow of time is associated with a positive mean entropy production. We will discuss the physics of the quantum arrow of time and present results of recent experimental investigations of irreversibility in a nuclear magnetic resonance setup.