



Einladung zum Vortrag

Dark Matter: from theory to detection

anlässlich des Habilitationsverfahrens
für das Fach “ Theoretische Physik ”

von

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Ort: Ludwig-Boltzmann-Hörsaal, Boltzmannngasse 5, EG

Abstract:

Astronomical and cosmological observations reveal a discrepancy in the apparent and gravitationally inferred distributions of mass on galactic length scales and beyond. This discordance is generally attributed to the presence of a non-luminous matter component called Dark Matter. A solution to this missing mass problem is likely within the realm of particle physics. I will review evidence, theories, and avenues for its detection. I will then highlight recent theoretical advances that have significantly increased the physics reach of so-called direct detection experiments, i.e., laboratory probes that seek to register the ultra-rare interactions of galactic Dark Matter with ordinary matter. Some more general comments on where the field is heading will also be offered.