FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

Garchinger Maier-Leibnitz-Kolloquium

Donnerstag, 25.11.2021, 16^{15} Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Prof. Gia Dvali

(LMU Munich)

Demystifying black holes

Black holes are considered mysterious due to their time evolution and information processing. However, it is becoming evident that these properties are generic for a class of objects, called saturons, that have maximal entropy compatible with unitarity. Saturons exist in a wide class of ordinary theories. Strikingly, even QCD contains a candidate state, a so-called color glass condensate. Saturons exhibit an information horizon, their entropy is given by the area, their decay is thermal with the temperature given by their inverse radius and they start releasing the quantum information only after their half-decay. The observed correspondence between saturons and black holes has a wide range of implications for black hole physics, both fundamental and observational; for particle physics; and for quantum information processing in many-body systems.

For whom it is not possible to join in person (being the recommended participation mode), a remote access via ZOOM will be provided:
https://lmu-munich.zoom.us/j/98457332925?pwd=TWc3V1JkSHpyOTBPQVlMelhuNnZ1dz09
Meeting ID: 984 5733 2925
Passcode: 979953

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