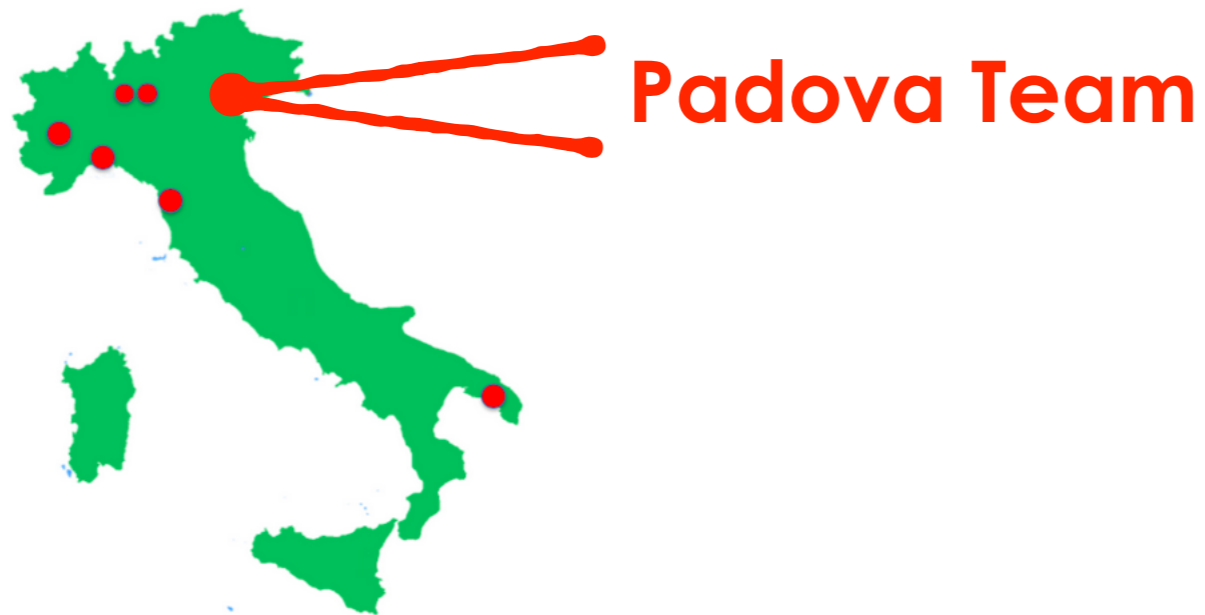


G S S

Gauge Theories, Strings and Supergravity



Consiglio di Sezione INFN — Padova — 10/7/2018

GSS — Members 2018

- Permanent

Davide Cassani (R.L.), Gianguido Dall'Agata, Stefano Giusto, Luca Martucci

- PhD students and postdocs

Sukruti Bansal, Alessandro Bombini, Niccolò Cribiori, Andrea Galliani, Stefano Lanza, Lorenzo Papini, Alessio Marrani (50%), Praxitelis Ntokos (50%)

Some will leave in fall, hired by other institutes. A new postdoc will join.

FTE: 8,5

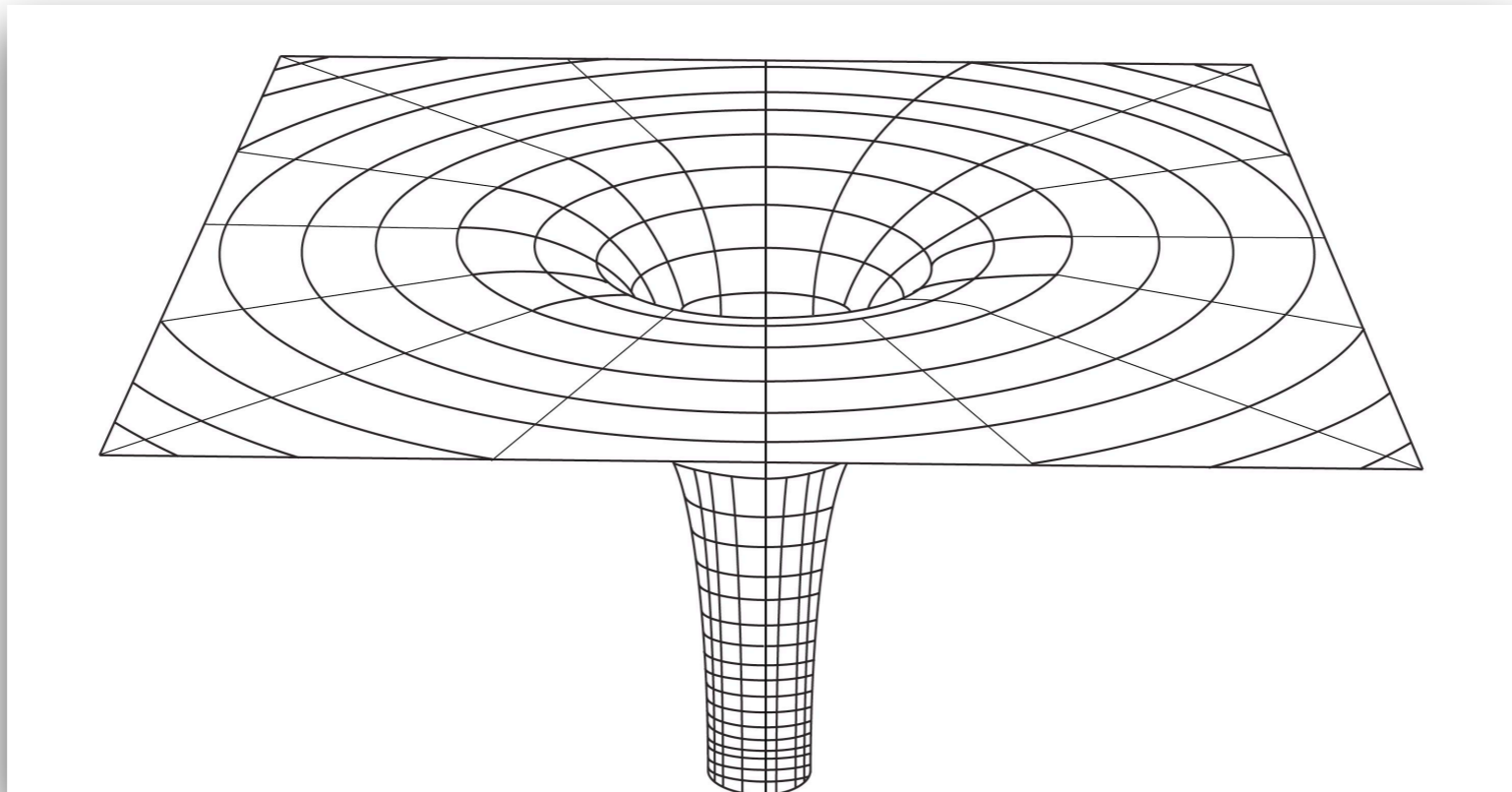


17 kEURO per missioni

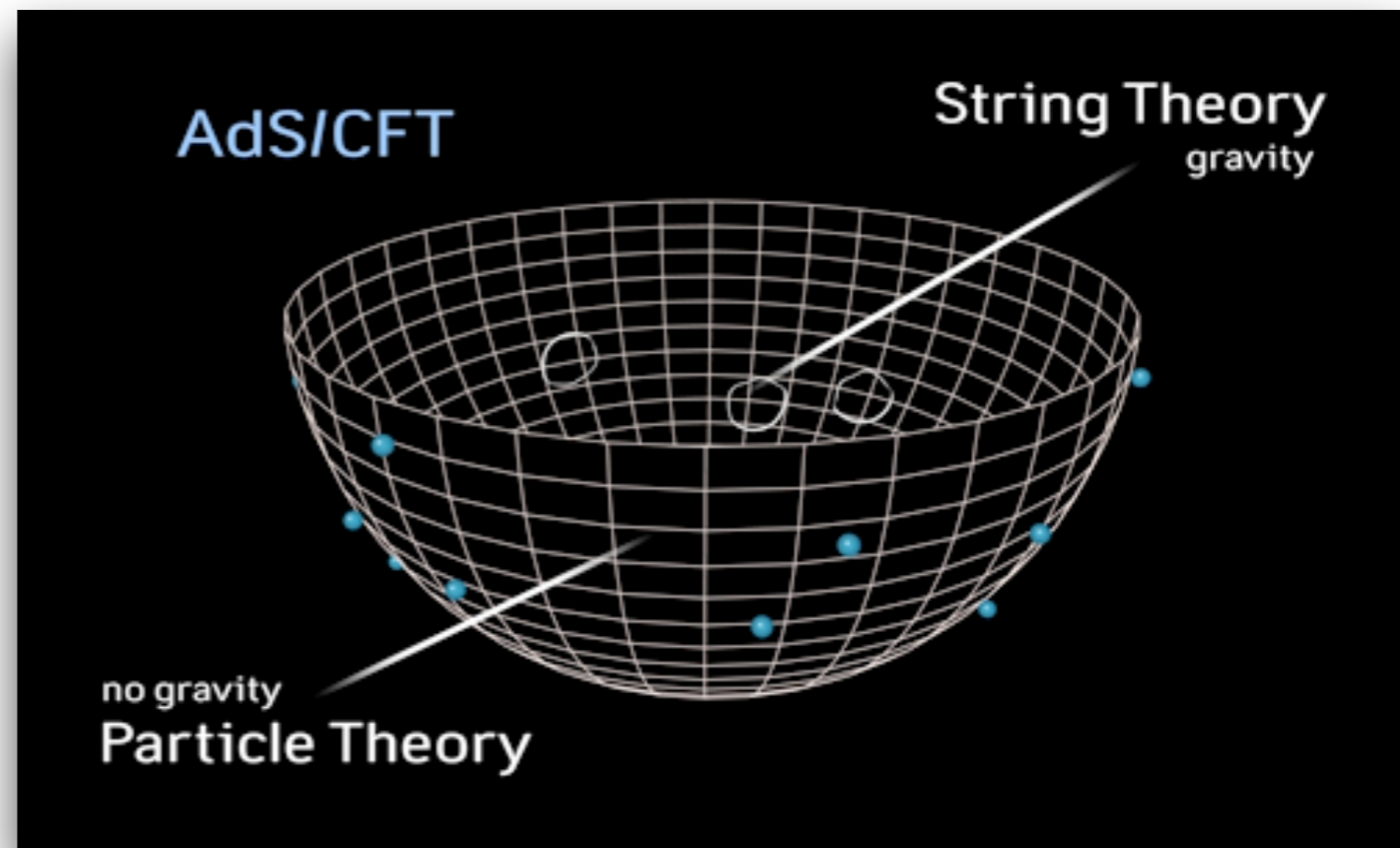
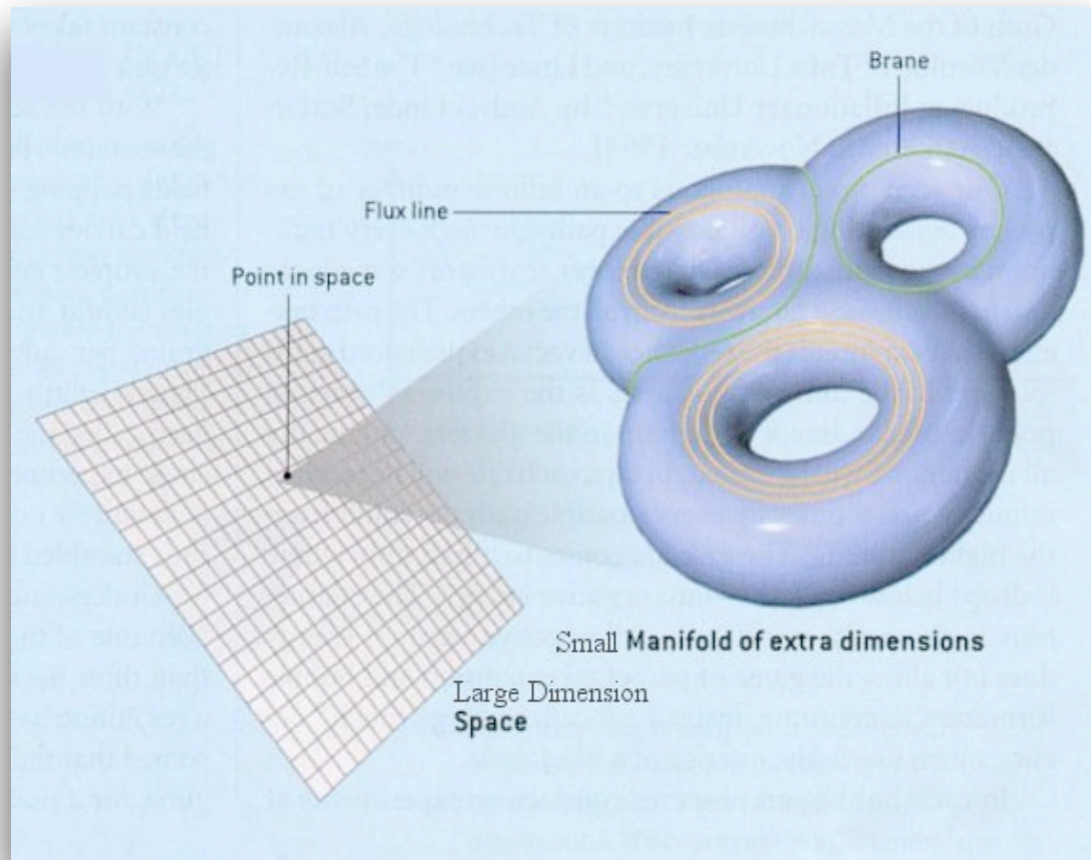
- Current Master students (not affiliated to INFN)

Enrico Andriolo, Ginevra Buratti, Stefano De Angelis, Giulia Fardelli, Andrea Grigoletto, Andrea Sangiovanni

- Black Holes, the Information Paradox and Holography
 - ◆ Construction of black hole microstates in string theory and analysis of correlators in dual SCFT states
 - ◆ New supersymmetric black holes in Anti de Sitter space
 - ◆ Study of supersymmetric black hole thermodynamics



- Supergravity, String Theory and Holography
 - ◆ String landscape, vacuum selection and quantum gravity conjectures
 - ◆ Effective actions for string compactifications and holography
 - ◆ Consistent truncations using the tools of Generalized Geometry
 - ◆ Holographic RG flows for $N=2$ SCFT's



- Construction of New Supergravity Theories and their Implications
 - ◆ New conformal supergravity actions
 - ◆ Supergravities with three-forms
 - ◆ New Fayet-Iliopoulos D-terms
 - ◆ Chromo-natural Inflation in Supergravity

$$S = M_{\text{P}}^2 \int d^4x \left(\sqrt{-g} \mathcal{R} + \bar{\psi}_m \gamma^{\mu\nu\rho} D_\nu \psi_\rho \right) + \dots$$