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S E M I N A R

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S-fold program: Journey, Challenges, Achievements, and Future Directions

ABSTRACT:
String/M-theory dualities, discovered in the '90s, unveiled unexpected correspondences among different string theories realized on various backgrounds, hinting towards a unique, unifying, though yet unknown, quantum theory. Part of these dualities manifests as global symmetries in the low-energy supergravity description of superstring theory. Lower-dimensional supergravity has proven to be a powerful framework for constructing new superstring solutions. In recent years, a new class of supersymmetric solutions to ten-dimensional supergravity has attracted particular attention. They are named S-fold backgrounds and are putative non-perturbative solutions to Type IIB superstring theory. Such solutions encode string dualities as a built-in feature, encoded in their spacetime structure.

I shall review recent progress in the study of these solutions and their application to AdS/CFT.

Prof Mario Trigiante lectures in the Department of Applied Science and Technology (DISAT) at the Polytechnic University of Turin in Italy.

Date:
Friday, 11 October 2024

Time:
14h00-15h00 SAST

Venues:
- P213, Physics Building, East Campus, WITS
- Online

Who should attend?
All are welcome!

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