UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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SEMINARIO

Relatore: prof. **Dmitri Alekseevsky**,
Institute for Information Transmission Problems, Moscow

Titolo: ***Special Vinberg cones and their applications***

Data: **Mercoledì 1 febbraio 2023**, ore **14:30**
Luogo: Sala Riunioni e Seminari,
Plesso di Matematica, Campus

Organizzatore: prof. Costantino Medori

Outline:

1. 1. Basic definitions: homogeneous convex cones and the dual cones.
   2. Applications of homogeneous convex cones
   3. Homogeneous convex cones as Riemannian manifolds
   4. Köcher-Vinberg classification of selfdual homogeneous convex cones.
   5. Rank 3 Special Vinberg cones.
   6. Special Kähler and spacial quaterniionic Kähler manifolds associated to a special Vinberg cone. Physical interpretation.
   7. Application of the Vinberg cones to Supergravity. Calculation of Bekenstein-Hawking entropy of a BPS static black hole in N=2 D=4 Supergravity.

1. The talk is based on a joint works with Vicente Cort´es (Transformation Groups, 2020) and Alessio Marrani and Andrea Spiro (J. Higher Energy Physics, 2021) .