Workshop on Astro-particles and Gravity



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On conformal geometry and new conformal invariants in absolute parallelism geometry

Thursday 22 September 2022 09:30 (30 minutes)

I will give a quick look to conformal transformation in different frameworks, namely, in the context of Riemannian geometry, Finsler geometry and absolute parallelism geometry. After that, I will move to absolute parallelism geometry and investigate conformal changes in this geometry. Then, some new conformal invariants in terms of the Weitzenbock connection and the Levi-Civita connection of an absolute parallelism space are given.

This talk is based on some references such as:

1- N. L. Youssef, A. Soleiman, and Ebtsam H. Taha, new conformal invariants in absolute parallelism geometry , Int. J. Geom. Methods Mod. Phys. (2018) 1850012.

2- M. A. Javaloyes and B. L. Soares, Anisotropic conformal invariance of lightlike geodesics in pseudo-Finsler manifolds, Class. Quantum Grav. 38 (2021) 025002.

3- N. Voicu, Conformal maps between pseudo-Finsler spaces, Int. J. Geom. Methods Mod. Phys. (2018) 15 1850003.

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