Geometric Foundations of Gravity 2025



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Finsler Geometry and the Fabric of Spacetime

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Finsler spacetime geometry offers a natural generalization of Lorentzian one, based on a most general notion of arc length. In this talk, I will discuss:

- The physical motivations for adopting a Finslerian model of spacetime, with emphasis on its potential to describe scenarios beyond the reach of Riemannian geometry.
- The overlap between Finsler gravity and metric-affine gravity and the way the two frameworks enrich each other.
- A concrete Finslerian model for the gravitational field which leads, in cosmological symmetry, to an exponentially expanding spacetime, without the need of a cosmological constant or of any additional quantities.

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