Spatially spherically symmetric Berwald Finsler spacetimes and the Finsler Gravity Birkhoff Theorem

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Spatially spherically symmetric spacetime geometries are essential in physics. They are employed to describe the gravitational fields of astrophysical objects like black holes and ordinary and neutron stars, as backgrounds in which gravitational waves and accretion discs propagate, and as a first approximation of realistic rotating gravitating systems. In this talk, I present a complete classification of spatially spherically symmetric Berwald spacetime geometries. Berwald spacetime geometries are those Finsler spacetime geometries closest to the usual pseudo-Riemannian spacetime geometry of general relativity, as they still define an affine spacetime geometry. Their classification allows us to extend the famous Jebsen-Birkhoff theorem to Berwald Finsler gravity.