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Flash Talk: Kuchowicz gravastars in Horava gravity and Einstein-aether theory

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This work introduces a new gravastar model inspired by the Mazur-Mottola framework within Lorentz-violating gravity, specifically Hořava gravity and Einstein-aether theory with the help of Kuchowicz metric function. The proposed gravastar consists of three distinct regions: a de Sitter-like core, a thin shell filled with ultra-relativistic matter, and an exterior vacuum spacetime. Exact solutions obtained for each region demonstrate the consistency and viability of the model. A detailed investigation of the shell's physical properties, along with the other conditions confirms its stability and physical plausibility. The resulting gravastar solutions are free from singularities and event horizons, offering a compelling alternative to the conventional black hole paradigm in Lorentz-violating gravity theories.

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