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## **J. Gigante Valcarcel: New black hole solutions with a dynamical traceless nonmetricity tensor in Metric-Affine Gravity**

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In the framework of Metric-Affine Gravity, the existing correspondence between the Einstein tensor and the energy-momentum tensor of matter provided by General Relativity is extended towards a post-Riemannian description in terms of the torsion and nonmetricity fields, which are sourced by the spin, dilation and shear currents of matter. In this talk, we discuss the dynamical role of the traceless part of the nonmetricity tensor and its intrinsic connection with shears, defining a model which encloses a new black hole solution endowed with shear charges. We show that the extension in the presence of dynamical torsion and Weyl vector leads to the broadest family of static and spherically symmetric black hole solutions with spin, dilation and shear charges in Metric-Affine Gravity so far.

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