

Gravitational Geometry and Dynamics Group Seminar

Wed., September 23, 2026, at 11h00.

Room: Anfiteatro 11.1.12 and Teams ID: 374 226 922 147 939

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More about *Gr@v*
at: gravitation.web.ua.pt



Ernst-like Formalism and Exact Solutions in Einstein–Maxwell/ModMax–Scalar Gravity

We present an Ernst-like formalism for stationary and axisymmetric Einstein–Maxwell/ModMax gravity coupled to a scalar field. The Maxwell sector is recovered as a particular limit of the ModMax theory, allowing both theories to be studied within the same framework.

We illustrate the formalism through several exact solutions, including Schwarzschild, Reissner–Nordström, Kerr, Kerr–Newman, and dilatonic configurations.

We then discuss more general exact families in the scalar and nonlinear ModMax sectors, including rotating solutions, together with their relations and limiting cases.