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**General relativistic magneto-hydrodynamics with the Einstein Toolkit** PHILIPP MOESTA, California Institute of Technology, BRUNO MUNDIM, Max Planck Institute for Gravitational Physics, JOSHUA FABER, SCOTT NOBLE, Rochester Institute of Technology, TANJA BODE, Georgia Institute of Technology, ROLAND HAAS, California Institute of Technology, FRANK LOEFFLER, CCT, Louisiana State University, CHRISTIAN OTT, CHRISTIAN REISSWIG, California Institute of Technology, ERIK SCHNETTER, Perimeter Institute — The Einstein Toolkit Consortium is developing and supporting open software for relativistic astrophysics. Its aim is to provide the core computational tools that can enable new science, broaden our community, facilitate interdisciplinary research and take advantage of petascale computers and advanced cyberinfrastructure. The Einstein Toolkit currently consists of an open set of over 100 modules for the Cactus framework, primarily for computational relativity along with associated tools for simulation management and visualization. The toolkit includes solvers for vacuum spacetimes as well as relativistic magneto-hydrodynamics. This talk will present the current capabilities of the Einstein Toolkit with a particular focus on recent improvements made to the general relativistic magneto-hydrodynamics modeling and will point to information how to leverage it for future research.

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