

Abstract Submitted
for the APR12 Meeting of
The American Physical Society

The Einstein Toolkit¹ FRANK LÖFFLER, Louisiana State University, EINSTEIN TOOLKIT COLLABORATION — 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, along with modules for initial data, analysis and computational infrastructure. These modules have been developed and improved over many years by many different researchers. The Einstein Toolkit is supported by a distributed model, combining core support of software, tools, and documentation in its own repositories and through partnerships with other developers who contribute open software and coordinate together on development. As of January 2012 it has 68 registered members from 30 research groups world-wide. This talk will present the current capabilities of the Einstein Toolkit and will point to information how to leverage it for future research.

¹The Einstein Toolkit is supported by NSF grants 0903973/0903782/0904015 (CIGR)

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Date submitted: 06 Jan 2012

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