

Einstein Toolkit: Application for Working Group

Type: Working Group

Title: Education and Outreach

Lead(s): Matt Corne <cornem@uwstout.edu>

Initial Members:

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Background: This working group will address the following goals for the Einstein Toolkit:

- Expand our reach: Provide the tools and community to encourage and support new and diverse researchers in relativistic astrophysics, cosmology and physics beyond the standard model.
- Provide Learning Materials: Establish a teaching resource bank in the Einstein Toolkit
- Provide Scientific Outreach: Coordinate and track outreach in computational relativistic astrophysics to other science communities, K-12 and the public

Activities undertaken through this working group include:

- Include, support and track Outreach and Education goals of the NSF SI2 award and facilitate the development, support and impact of outreach and education activities through other Einstein Toolkit funded projects
- Coordinate and help support pedagogical activities of the Einstein Toolkit such as instruction modules, summer schools, tutorials, involvement in K-12/informal learning
- Identify and track relevant metrics for education and outreach
- Provide a forum and webpage to discuss, collect and promote education and outreach activities undertaken by the Einstein Toolkit Community including
- Provide and maintain a communications plan for the Einstein Toolkit, including for example outreach to other relevant projects such as LIGO, LISA, etc.
- Monitor materials such as tutorials, examples, documentation to check they are up to date, working and informative for new users.

Milestones:

- July 1 2018: Initial list of activities, milestones and deliverables collected and discussed at the Spring 2018 Einstein Toolkit Meeting
- During SI2 Project: Modules from teaching resource bank will be used at RIT and Georgia Tech

Deliverables:

- SI2 Deliverable: Educational modules including lecture notes and quizzes, e.g. numerical solution of PDEs, stability/convergence, automated code generation used for instruction and publically available
- SI2 Deliverable: Recorded lectures on gravitational physics and astrophysics topics using the Einstein Toolkit
- SI2 Deliverable: Einstein Toolkit Apps for K-12 students

Engagement:

- Working Group Mail list: education-wg@einstein toolkit.org
 - Sign up: <http://lists.einstein toolkit.org/mailman/listinfo/education-wg>
- Monthly phone calls
 - Second Thursday of the Month at 1pm CST (currently by Google Hangouts)