North American Einstein Toolkit Workshop 2024

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June 3-7, 2024

Digital Media Center Theatre (<u>Map</u>) Louisiana State University Baton Rouge, LA

We are pleased to announce the 2024 edition of the North American Einstein Toolkit Workshop. The Workshop to be held at the <u>Center for Computation & Technology</u>, at Louisiana State University will provide an opportunity for researchers and students to learn about the Einstein Toolkit (https://einsteintoolkit.org/), a community-driven software platform of core computational tools to advance and support research in relativistic astrophysics and gravitational physics.

The workshop will offer a mixture of talks and tutorials, with the tutorials including basic tutorials for new users and more advanced topics. The talks will, likewise,

provide information for new users and will highlight exciting science cases and the latest developments in numerical relativity. On the final day, we will discuss future directions and development.

A community-driven software

platform supporting

aravitational physics

astrophysics and

Registration: Free to attend; lunch is included. Deadline to register is: May 19, 2024 (for in-person). This is a hybrid conference, in-person attendance is preferred.

Click here to register

Schedule: (schedule available)
Interactive: (Interactive Schedule)

Monday, June 3 (All day) Tuesday, June 4 (All day)

Wednesday, June 5 (1/2 day; and expedition to LIGO from 1-5PM)

Thursday, June 6 (All day) Friday, June 7th (All day)

LIGO Expedition (<u>Laser Interferometer Gravitational-Wave Observatory</u>): LIGO was designed to open the field of <u>gravitational-wave</u> astrophysics through the direct detection of gravitational waves predicted by Einstein's General Theory of Relativity. LIGO's multi-kilometer-scale gravitational wave detectors use <u>laser interferometry</u> to measure the minute ripples in space-time caused by passing gravitational waves from cataclysmic cosmic events such as colliding neutron stars or black holes, or by supernovae. LIGO consists of two widely-separated interferometers within the United States—one in Hanford, Washington and the other in <u>Livingston, Louisiana</u>—operated in unison to detect gravitational waves.

Sponsored by: National Science Foundation SI2-SSI: Collaborative Research: Frameworks: The Einstein Toolkit ecosystem: Enabling fundamental research in the era of multi-messenger astrophysics (#2004157)

The Einstein Toolkit is a community-driven suite of research-grade codes for performing astrophysics and gravitational wave calculations. The code is open-source and represents a long-term investment by NSF in providing such computational infrastructure. The software is designed for simulations that require full evolution of general relativistic spacetimes, e.g. black hole and neutron star mergers, supernovae, and cosmological scenerios, etc.

Travel:

Baton Rouge Metropolitan Airport (<u>BTR</u>) Louis Armstrong New Orleans International Airport (MSY)

Travel support is available in the amounts of \$1000 USD for domestic travel and \$1500 USD for foreign. Support is subject to review and availability. Requests can be made via the registration form above.

Lodging:

A block of rooms has been reserved at the Cook Hotel on LSU's campus.

Cook Hotel @ LSU

3848 W. Lakeshore Drive, Baton Rouge, LA 70808 225-383-2665 (ask for CCT/Einstein Toolkit Workshop block)

Special rate: \$119.00 (deluxe double rooms) expires 5/5/24

A complimentary breakfast is served each morning in the Shaquille R. O'Neal Lodge from 6:00 AM until 9:30 AM for all registered hotel quests.

Einstein Toolkit Workshop Booking Link for the Cook Hotel https://reservations.travelclick.com/110626?groupID=4282636



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