This image depicts a dam-break wave at a vertical wall as computed using the moving particle semi-implicit method. It was on display at the Center for Computational Science art show in fall 2016.

In fall 2008, the Center for Computational Science at Tulane University began a tradition that brought together minds well versed in numbers and those with an eye for art. The tradition lives on in an annual showing of computational art during which researchers use algorithms and computers to visually present their findings.

“The Center for Computational Science had an administrative assistant who was not a scientist but used to say that some of the figures we generated were nice to look at even without understanding the science behind them,” said Ricardo Cortez, director of the Center for Computational Science.

The assistant’s idea led to the framing of computations and their eventual display in an art show and open house.
Cortez said the process is an opportunity for the researchers to step out of their comfort zones. Participants in the show, held the week after Thanksgiving, include undergraduate and graduate students as well as researchers and faculty who have an active role in the center’s research projects.

“Some students and postdoctoral researchers are reluctant to contribute to the event because they are not sure that their images are ‘artistic’ enough,” said Cortez. “After all, most of us are not trained in art. But everyone eventually gets excited about participating.”

In order to foster creativity, researchers—or artists in this case—are allowed to relax the accuracy of their scientific computations and focus on the images as art rather than meticulous research.

“Our goal is to promote the existence of the Center for Computational Science and its collaborative scientific projects,” said Cortez. “The art show is a way for scientists and nonscientists to enjoy a common event.”

The 2018 show will be held on Tuesday, Nov. 28 from 4:30 p.m. to 6 p.m. on the fourth floor of Stanley Thomas Hall on the uptown campus.

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