Simons Postdoctoral Leadership Initiative at DIMACS

[February 2021] We are pleased to announce that DIMACS has been selected to receive an award from the Simons Foundation to establish a new Simons Postdoctoral Leadership Initiative

at DIMACS. The initiative will fund four Postdoctoral Leaders over the next three years and provide budget to enhance their research through workshops, working groups, and visits that catalyze collaborations aligned with their research visions.

The new initiative is led by DIMACS director David Pennock, who says, "We are thrilled receive this award and grateful to the Simons Foundation. Our early-career members are our top priority. Postdocs hired through this grant will be able leverage the center's resources and connections to build their careers. At the same time, their presence at DIMACS will add tremendous vibrancy and energy to the center."

The Simons Postdoctoral Leadership Initiative will support postdocs working in theoretical computer science or the foundations of data science and artificial intelligence. Each Postdoctoral Leader will be based at DIMACS and mentored by Pennock or one of four additional Initiative faculty members—Eric Allender (Rutgers), Jie Gao (Rutgers), Tim Roughgarden (Columbia), and Matt Weinberg (Princeton).

The Initiative offers selected postdocs several unique opportunities. First, Postdoctoral Leaders control a Leadership Fund to support their own traveling for research, hosting of visitors at DIMACS, and planning of small events such as research working groups or seminars. The Leadership Fund may also be applied toward corporate or international research experiences if desired by the postdocs. Three corporate partners and four international partners have agreed to host week-long visits by Postdoctoral Leaders. The corporate hosts—Bell Labs, IBM Research, and Microsoft Research—are all formal partners of DIMACS with nearby facilities. The international hosts are CRM in Canada, LAMSADE in France, DIMATIA in the Czech Republic, and the 3A Institute in Australia. All are active DIMACS collaborators in areas of relevance to this initiative— LAMSADE and 3A in socially responsible algorithms and AI; DIMATIA in TCS; and CRM in optimization and sustainability. Several of these partners are open to extended visits. An additional partnership with the Simons Institute for the Theory of Computing offers Postdoctoral Leaders an opportunity to spend time at both DIMACS and the Simons Institute.

Also part of the grant is a Hot Topics Fund to support larger events that the postdocs and their mentors envision. These funds augment the individual Leadership Funds available to each postdoc to enable broader community



outreach by the postdocs and their mentors on themes that are relevant to their research and strategically important to DIMACS.

Simons Postdoctoral Leaders will join a legion of past DIMACS postdocs, many of whom have gone on to become leader in their fields. In its 30-year history, DIMACS has been home to over 170 postdocs—the majority working in theoretical computer science or related areas of mathematics. In the early years of DIMACS—bolstered by the Science and Technology Center (STC) grant with which it was founded—the center typically hosted seven to ten postdocs at a time. These people, at DIMACS for long periods of time, infused the center with energy and a broad sense of community. Since the end of the STC grant in 2000, it has become increasingly difficult to secure financial support for postdocs, particularly those who are not tethered to specific project deliverables.

The new grant addresses this challenge. It come through the Targeted Grants to Institutes program of the Simons Foundation's Mathematics and Physical Sciences division, which supports established research institutes in mathematics, theoretical physics, and theoretical computer science by providing funds that help to extend and enhance their missions.

DIMACS is one of three institutions selected to receive a 2021 Institutes grant. Others are MATRIX, a research institute for the mathematical sciences in Australia, and the International Centre for Theoretical Physics/South American Institute for Fundamental Research, a center for theoretical physics based in Brazil.

This award to DIMACS is our first from the Simons Foundation, and we are grateful for the opportunities it will provide.

Selected Links:

Simons Foundation: https://www.simonsfoundation.org/

Simons Targeted Grants to Institutes Program: https://www.simonsfoundation.org/grant/targeted-grants-to-institutes/

DIMACS postdocs: http://dimacs.rutgers.edu/about/people/postdocs/past-dimacs-postdocs