R·I·T College of Science

MONTH IN REVIEW • AUGUST 2016

Message from the Dean

Welcome back to the College of Science. It is always exciting to see students return to our classrooms and hear about the activities of our faculty members over the summer.

Our faculty members and continued to add to our list of accolades throughout the summer. Three visited Moscow and the Russian Arctic to help open doors to new academic opportunities. Our faculty have received research awards and recognition both in their areas of study and in teaching and learning. In our newsmakers section, you'll see an impressive set of publications, invited talks, and funding announcements.

Sophia Maggelakis, Dean
RIT College of Science

Please enjoy the sunny days of August. I look forward to seeing you again as we start the fall semester.

In the News

August 2016

COS faculty visit Moscow State University and Russian research station

Dr. Matthew Hoffman, of the RIT School of Mathematical Sciences, and Drs. Carrie McCalley and Christy Tyler, of RIT's Thomas H. Gosnell School of Life Sciences, spent 11 days traveling in Russia in an effort to develop educational and research collaborations with Moscow State University. The trip was supported by funds from the Paul and Francena Miller Chair in International Education currently held by

College of Science professor Anthony Vodacek. Facebook Album >

RIT undergraduates build star-tracking instrument for NASA research rocket

Rochester Institute of Technology undergraduates are making a “compass” for rockets using a new kind of detector technology. The instrument will fly on a NASA technology demonstration mission later this year. Assistant Professor of Physics Michael Zemcov proposed the experiment to test detectors made of metal-oxide semiconductor, or CMOS, a promising new material that can operate at liquid nitrogen temperatures, minus 320 degrees Fahrenheit.University News >

D2L recognizes Sandra Connelly for multimedia integration and accessibility

Sandra Connelly, assistant professor in the Thomas Gosnell School of Life Sciences received an Award of Excellence from D2L, the company that distributes the Brightspace online learning platform to colleges and universities. The award recognizes her work in adapting online material to better suit the needs of deaf and hard of hearing students.
D2L.com >

CCRG grows into leader in space-time research

RIT’s contributions to the first direct detection of gravitational waves signifies its growing reputation for world-class astrophysics

research. Members of the university's Center for Computational Relativity and Gravitation are part of the international collaboration affiliated with the Laser Interferometer Gravitational-wave Observatory, or LIGO. The scientific consortium, earlier this year, announced the landmark discovery of a gravitational wave passing through Earth.

University News >

RIT and UW-Madison study high-tech workforce, 21st century competencies

RIT will receive $650,000 from the National Science Foundation to support its role in the project led by Ben Zwickl, assistant professor in RIT's School of Physics and Astronomy, and Kelly Martin, assistant professor in RIT's School of Communication. The study will identify how and when students and employees learn transferrable skills that are critical for success in school, life and work. University News >

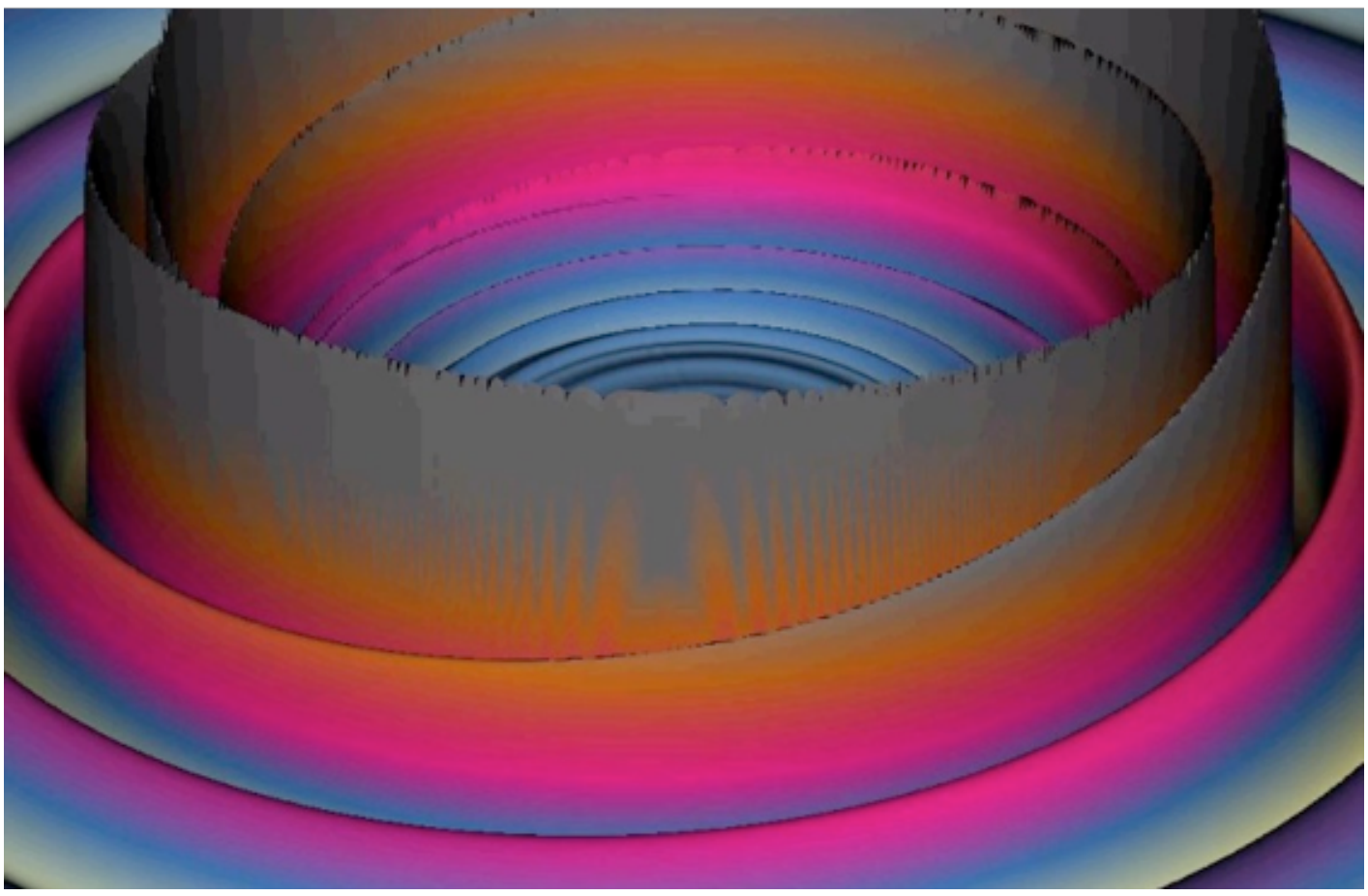
COS faculty awarded with AdvanceRIT Connect grants

The following RIT College of Science faculty members were awarded with 2016 Connect Grants through the AdvanceRIT program and the Office of the Provost, with advisory support from the Division of Diversity and Inclusion, Faculty Career Development Services, and Sponsored Research Services:

- **Kara Maki,** School of Mathematical Sciences; Co-PI – Michael Schertzer
- **Laura Munoz,** School of Mathematical Sciences; Co-PI(s) – Manuela Campanelli

(SMS) and Nathan Cahill (SMS)

- **Leslie Kate Wright,** Thomas H Gosnell School of Life Sciences; Co-PI(s) – Lea Michel (SCMS) and Sukanya Chakrabarti (SOPA)



Nicole Rosato, a graduate student in applied and computational mathematics, created a video simulation of two colliding black holes with the help of Laura Moon, a freshman undergraduate in engineering. The simulation represents research done by the Center for Computational Relativity and Gravitation. See the video >

Newsmakers

- **Mishkat Bhattacharya,** assistant professor, School of Physics and Astronomy, co-authored the article "Levitated Optomechanics" with colleagues Nick Vamivakas and Peter Barker in the July/August issue of *Optics & Photonics News*.
- **Ernest Fokoué,** associate professor, School of Mathematical Sciences, gave a talk, “Statistical Machine Learning Methods for High Dimensional Data,” at the University of Brest in France on June 21. He also served as an external examiner of a Ph.D. dissertation defense at the Universite de Bretagne-Sud in Vannes, France, on June 24.

- **Lea Vacca Michel,** associate professor, School of Chemistry and Materials Science, was an invited panelist for the forum, “Discovering Our Future: Educational Diplomacy and Women’s Empowerment,” at the diplomacy summit, Women’s Empowerment: Keys to Leadership, in Albany on June 1.
- **Leslie Kate Wright,** associate professor in the Thomas H. Gosnell School of Life Sciences, was the keynote speaker for the New Student and Family Convocation on August 17.
- **Sukanya Chakrabarti,** assistant professor in the School of Physics and Astronomy, presented “The Mystery of Dark Matter” on Friday at the Chabot Space and Science Center in Oakland, Calif.
- RIT to get federal funding for photonics research The Rochester Institute of Technology will receive $305,000 in federal funding through the National Science Foundation, Sens. Charles Schumer and Kirsten Gillibrand announced.
- For Integrated Photonics, a Tale of Two Materials With its suitability for monolithic integration for optics and photonics, silicon has been widely hailed as the material of the future. But graphene — with its capacity for signal emission, transmission and detection — could be the next disruptive technology.