

Division of Mathematical and Physical Sciences Spring 2022



Happy Spring!

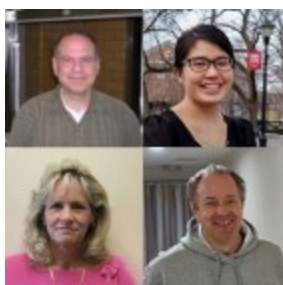
Once again, I invite you to read a sample of the news and accomplishments in the Division of Mathematical and Physical Sciences (MPS), visit our website, and connect with us on social media for much more information on our exciting work. As we all know, the year has been full of challenging developments in the pandemic together with many natural and man-made events; yet, once again, MPS units and people have achieved much. Perusing the newsletter, you will see numerous and broad MPS accomplishments, ranging from lending AI expertise to completing Beethoven's 10th Symphony to participating in the Institute of International Education - Scholar Rescue Fund program. I am deeply honored to be serving as dean of the division. To all the people in MPS, thank you for your dedication and resiliency. To colleagues, collaborators, and friends outside the division, we look forward to your engagement with MPS.

With best wishes,

Thu D. Nguyen
Dean of Mathematical and Physical Sciences



Departmental Highlights



MPS Administration

MPS staff members Steven Young, Katie Guarino, Viktor Oudovenko, and Lauryn Siu were recognized for their extraordinary contributions to the school through their hard work and dedication with the 2021 SAS Staff Excellence Awards.

[Read More](#)



Chemistry and Chemical Biology

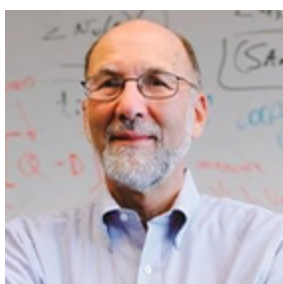
Rick Remsing and Kate Waldie were both awarded the American Chemical Society Petroleum Research Fund Doctoral Investigator Award, which recognizes exceptional early career researchers.



Computer Science

Ahmed Elgammal led an artificial intelligence team in partnership with musicologists to complete Beethoven's unfinished 10th Symphony.

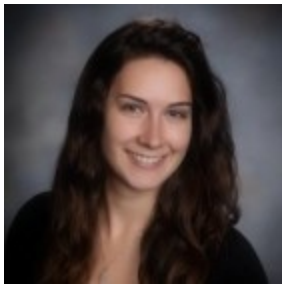
[Read More](#)



Center for Discrete Mathematics and Theoretical Computer Science (DIMACS)

Through a new Department of Homeland Security (DHS) SENTRY Center of Excellence, Rutgers will advance research on threat detection and mitigation. Fred Roberts, Director of CCICADA, an existing DHS Center of Excellence at Rutgers, notes that the research can provide ideas that have nationwide security implications.

[Read More](#)



Earth and Planetary Sciences

An international team including lead author and postdoctoral associate Jennifer Walker has found that modern rates of sea-level rise began emerging in 1863 as the Industrial Age intensified.

[Read More](#)



Mathematics

Jeff Kahn and Pham Huu Tiep were named 2022 Simons Fellows in Mathematics. This prestigious fellowship will allow them to focus on making significant advances in their research.



Physics and Astronomy

Physics graduate student Charlotte Olsen and her team homed in on 36 galaxies that were part of the ACS Nearby Galaxy Treasury, showing that they all have remarkably similar star formation histories despite the vast distances between them.

[Read More](#)



Statistics

Cunhui Zhang was invited to speak at the prestigious International Congress of Mathematicians 2022, one of the world's oldest scientific congresses.

Additional Departmental Highlights

Chemistry and Chemical Biology Mary Emenike was awarded an NSF Division of Undergraduate Education Improving Undergraduates STEM Education grant to coordinate a teaching excellence network to engage STEM faculty in teaching reform.

Computer Science Martin Farach-Colton was named an Association for Computing Machinery (ACM) Fellow, which recognizes the top 1% of members for computing advances that drive innovation. He has received a trifecta of recognition: SIAM fellow, IEEE fellow, and now the ACM Fellow.

Earth and Planetary Sciences Yair Rosenthal and an international team found that evolutionary cycles in coccolithophores contribute to changes in tropical seasonality related to shifts in the Earth's orbit that occur every 400,000 years.

[Read more](#)

Mathematics Recognized as an outstanding early-career researcher for his work in stochastic analysis, Li-Cheng Tsai was awarded a 2022 Sloan Research Fellowship. Sloan fellows go through an intensive nomination and selection process and go on to become renowned figures in science.

[Read more](#)

Physics and Astronomy Vitaly Podzorov, internationally recognized for his leadership in Applied Physics, was awarded the Donald H. Jacobs Chair in Applied Physics by the Rutgers Board of Governors.

[Read more](#)

Statistics Qiyang Han received a National Science Foundation Career Award, which recognizes outstanding early career faculty to study new paradigms of estimation and inference in constrained nonparametric models.



Connect with us!

