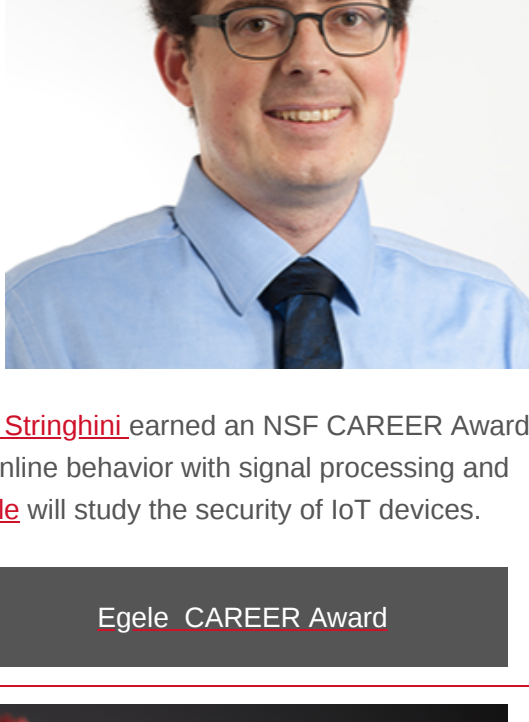
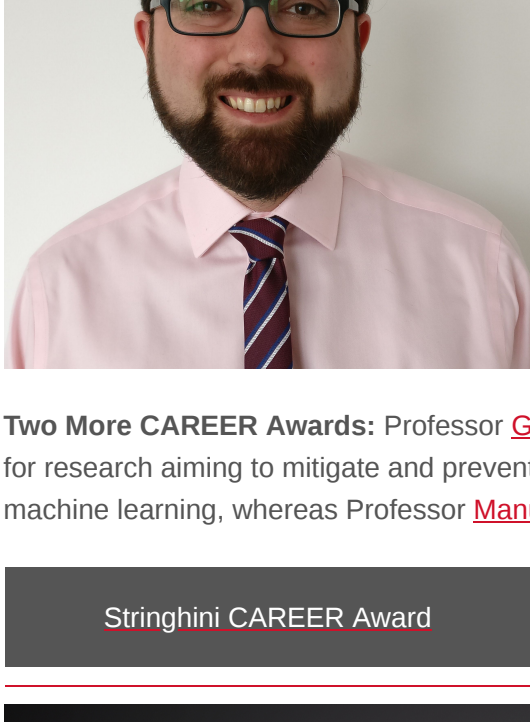


ECE 2020 FALL NEWSLETTER

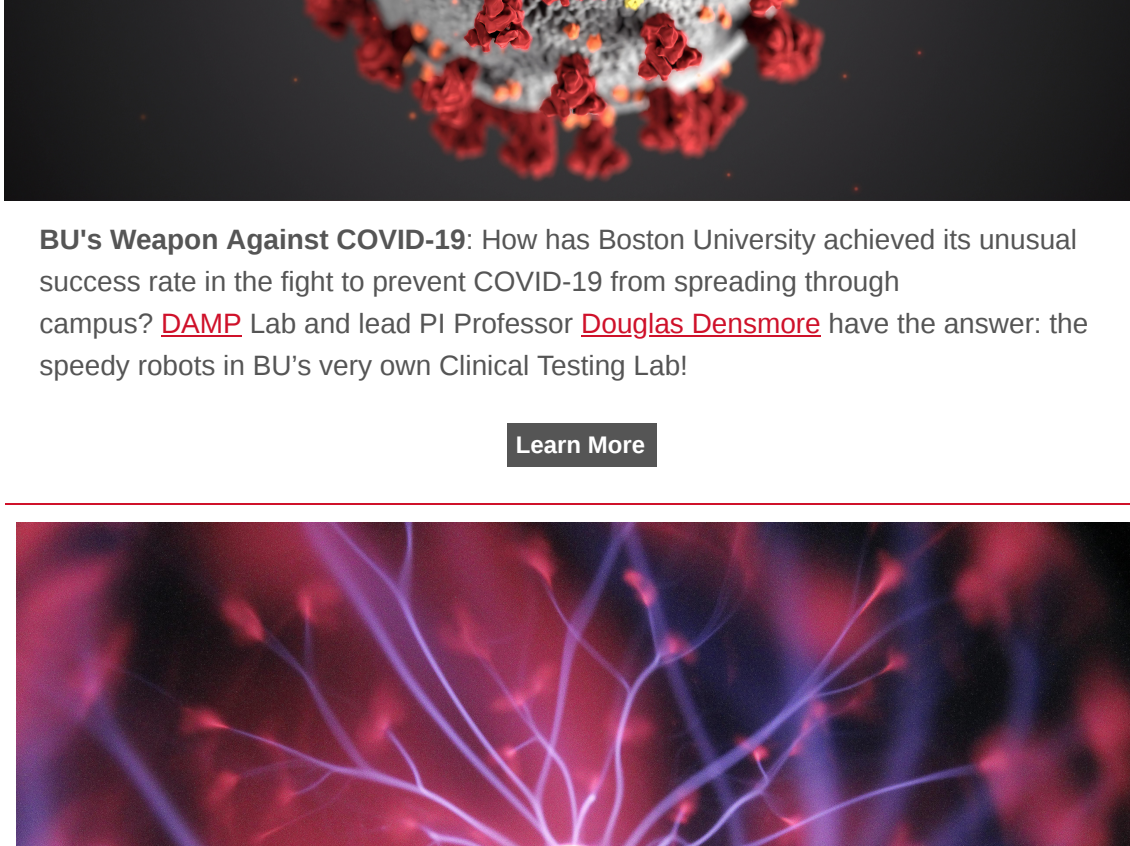
2019-2020 Impact Report released! Take a look at last year's achievements.



Two More CAREER Awards: Professor [Gianluca Stringhini](#) earned an NSF CAREER Award for research aiming to mitigate and prevent toxic online behavior with signal processing and machine learning, whereas Professor [Manuel Egele](#) will study the security of IoT devices.

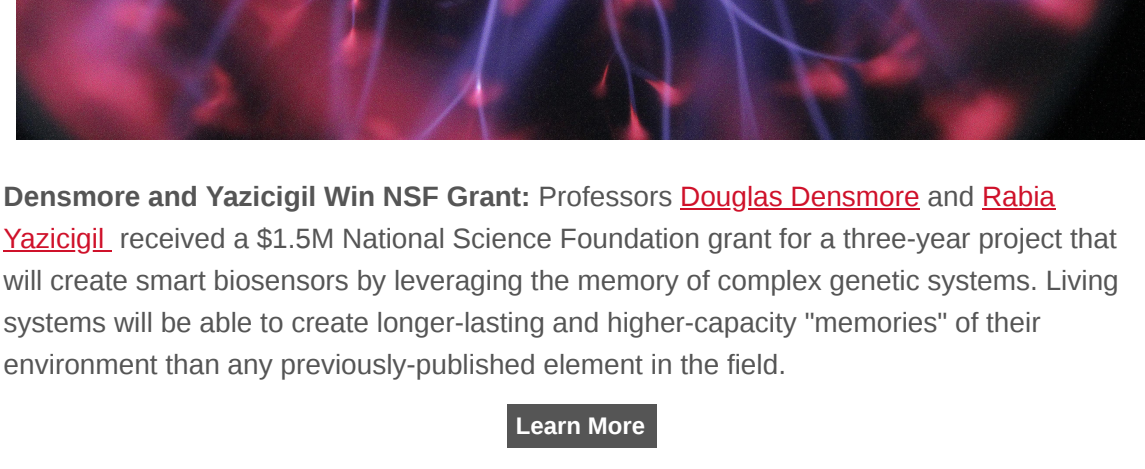
Stringhini CAREER Award

Egele CAREER Award



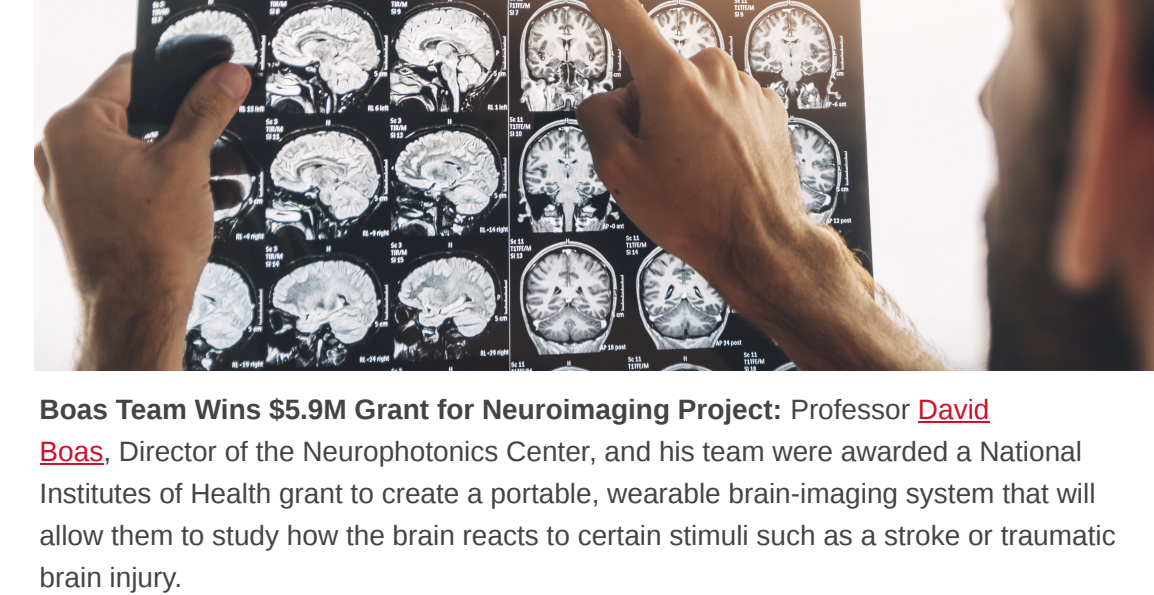
BU's Weapon Against COVID-19: How has Boston University achieved its unusual success rate in the fight to prevent COVID-19 from spreading through campus? [DAMP](#) Lab and lead PI Professor [Douglas Densmore](#) have the answer: the speedy robots in BU's very own Clinical Testing Lab!

[Learn More](#)



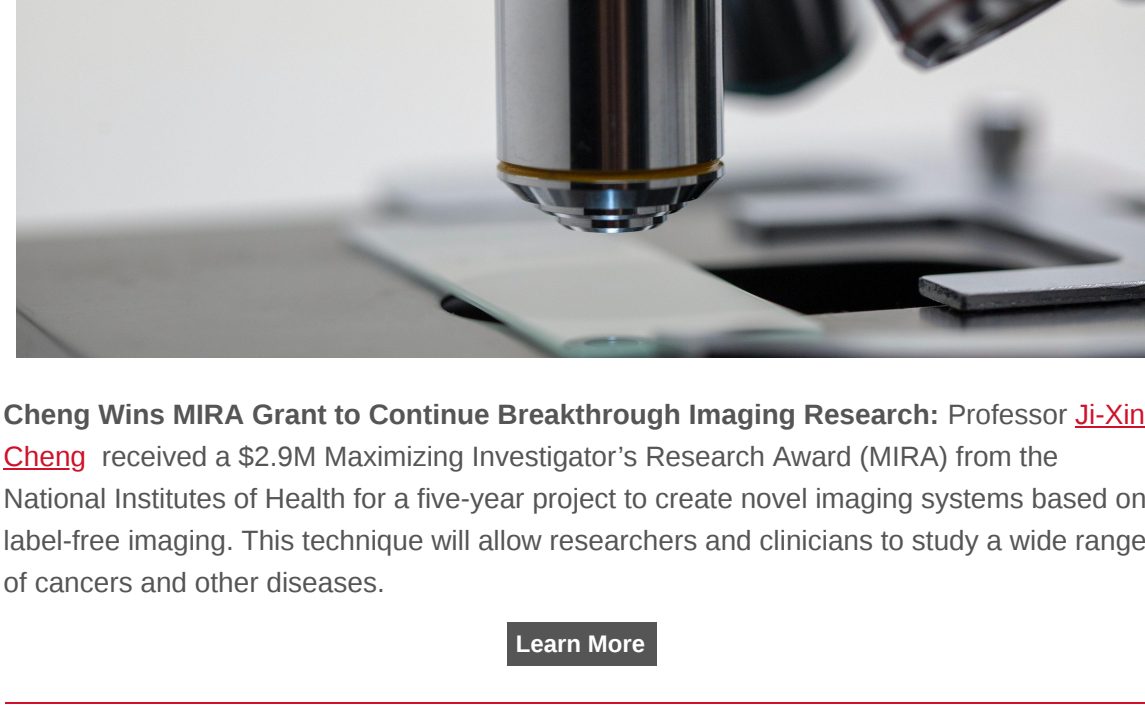
Densmore and Yazicigil Win NSF Grant: Professors [Douglas Densmore](#) and [Rabia Yazicigil](#) received a \$1.5M National Science Foundation grant for a three-year project that will create smart biosensors by leveraging the memory of complex genetic systems. Living systems will be able to create longer-lasting and higher-capacity "memories" of their environment than any previously-published element in the field.

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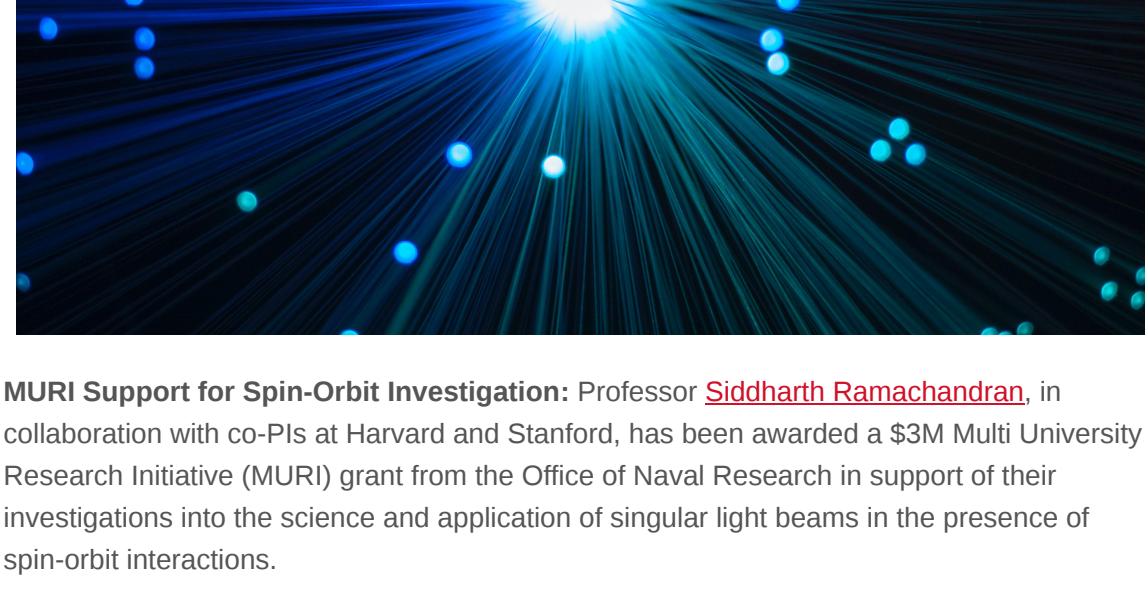
Boas Team Wins \$5.9M Grant for Neuroimaging Project: Professor [David Boas](#), Director of the Neurophotonics Center, and his team were awarded a National Institutes of Health grant to create a portable, wearable brain-imaging system that will allow them to study how the brain reacts to certain stimuli such as a stroke or traumatic brain injury.

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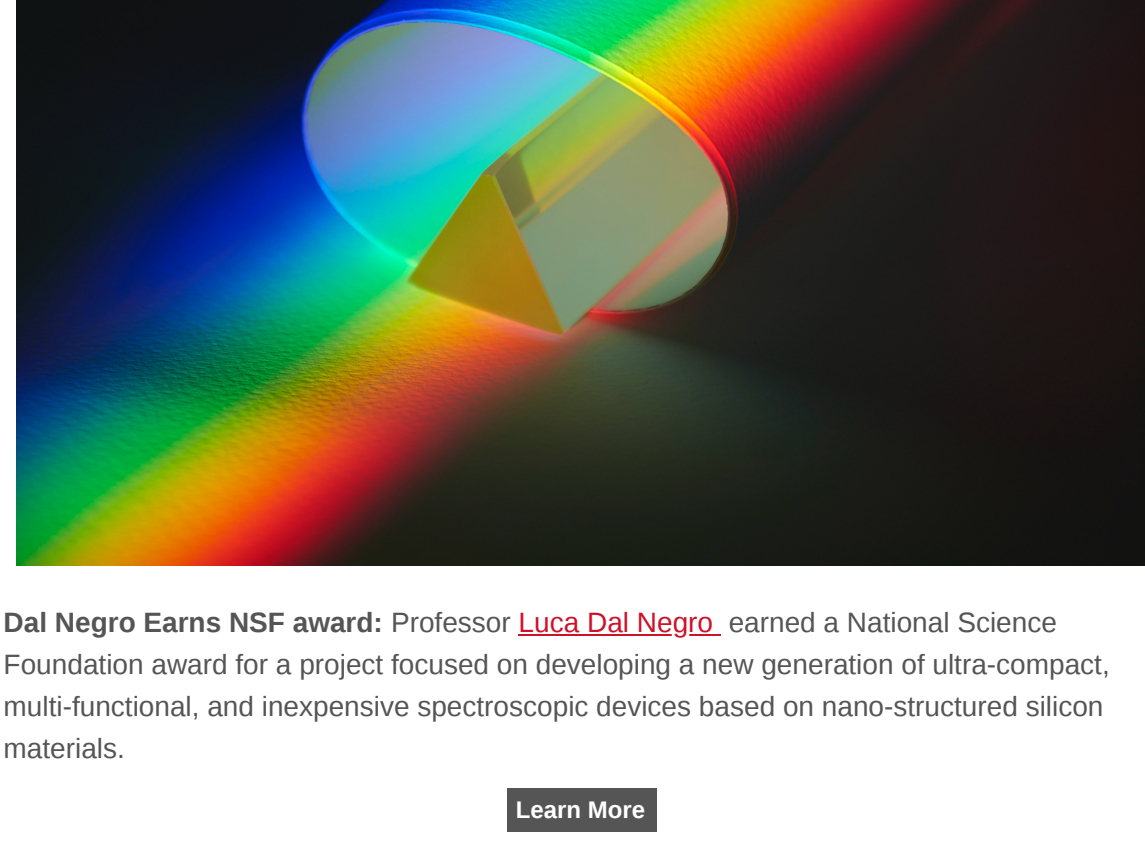
Cheng Wins MIRA Grant to Continue Breakthrough Imaging Research: Professor [Ji-Xin Cheng](#) received a \$2.9M Maximizing Investigator's Research Award (MIRA) from the National Institutes of Health for a five-year project to create novel imaging systems based on label-free imaging. This technique will allow researchers and clinicians to study a wide range of cancers and other diseases.

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MURI Support for Spin-Orbit Investigation: Professor [Siddharth Ramachandran](#), in collaboration with co-PIs at Harvard and Stanford, has been awarded a \$3M Multi University Research Initiative (MURI) grant from the Office of Naval Research in support of their investigations into the science and application of singular light beams in the presence of spin-orbit interactions.

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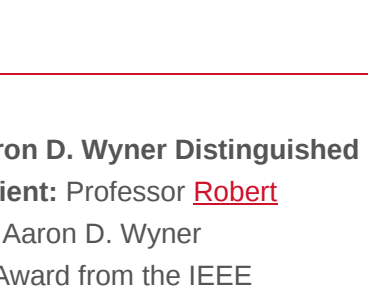


Dal Negro Earns NSF award: Professor [Luca Dal Negro](#) earned a National Science Foundation award for a project focused on developing a new generation of ultra-compact, multi-functional, and inexpensive spectroscopic devices based on nano-structured silicon materials.

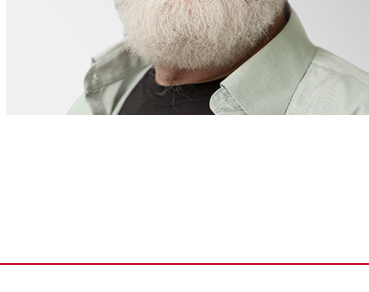
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FACULTY HONORS

Ünlü Elected to AiMBE College of Fellows: Professor [Selim Ünlü](#) was elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows for his pioneering work on optical interference in biological imaging and sensing.



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Gray Named 2020 Aaron D. Wyner Distinguished Service Award Recipient: Professor [Robert Gray](#) earned the 2020 Aaron D. Wyner Distinguished Service Award from the IEEE Information Theory Society for his outstanding leadership and exceptional service in the Information Theory community throughout his 50-year career.

[Learn More](#)

Goyal Earns IEEE Award: Professor [Vivek Goyal](#) won a 2019 IEEE Signal Processing Society Best Paper Award. In "Photon-Efficient Computational 3-D and Reflectivity Imaging With Single-Photon Detectors," Goyal describes models and methodology which can provide up to a 20-fold depth error reduction over state-of-the-art techniques.



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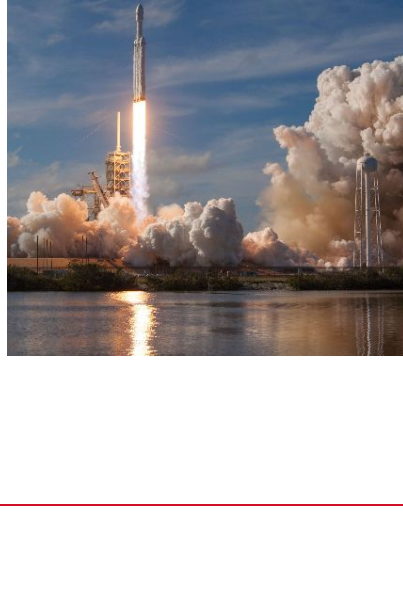
STUDENT ACHIEVEMENTS



Leading Anti-Racism in Engineering: The use of "slave" and "master" terminology to describe the relationship between computing devices has been an accepted practice in engineering for decades. However, computer engineering graduate student Santiago Gomez came across this metaphor in his textbook, contacted academic publisher Pearson, and successfully urged them to make long overdue changes.

[Learn More](#)

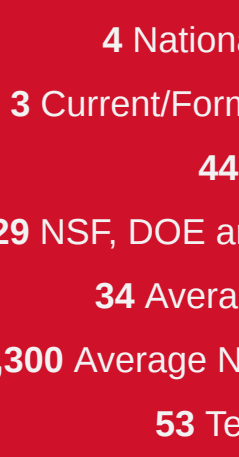
Student Satellite Blasts Off: After three years of work, the Boston University SATellite program (BUSAT) launched a network of mini-sensors, ANDESITE, into the atmosphere from New Zealand's Mahia Peninsula. The group is now on a three-year mission to deploy 8 smaller spacecraft that will form a space-based sensor network to measure small-scale variations in electric currents flowing into and out of our atmosphere.



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2021 U.S. NEWS AND WORLD REPORT PROGRAM RANKINGS



30% OF ECE BACHELOR'S DEGREES AT BU WERE AWARDED TO WOMEN IN 2019/20 COMPARED TO NATIONAL AVERAGE OF 15%
Most recent data from ASEE

Distinguished Faculty

- 4 National Academy Members
- 3 Current/Former IEEE Society Presidents
- 44 Society Fellows
- 29 NSF, DOE and DOD Early Career Awards
- 34 Average H-Index per Faculty
- 6,300 Average Number of Citations per Faculty
- 53 Tenure-Track Faculty

