

# Physicist Jack Harris Is Honored by DARPA as One of Nation's 'Rising Stars'

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(PhysOrg.com) -- Jack Harris, an associate professor of physics, has received one of this year's Young Faculty Awards (YFA) from the Defense Advanced Research Projects Agency (DARPA). He is one of 33 "rising stars" across the country to receive the accolade.

DARPA, which is an agency of the U.S. Department of Defense (DoD), chooses junior faculty for its YFA program each year and supplies funding, mentoring and exposure to the agency in order to help them develop research with potential DoD applications. The science spans a number of diverse fields, from energy to manufacturing to neuroscience.

"I feel quite honored to have received the award," Harris said. "The financial support associated with the prize is important, but just as importantly it provides a chance to meet several DARPA managers and learn about the agency's priorities and goals."

One of Harris' main research projects involves measuring the extremely weak force that "particles" of light, or photons, exert on tiny micromechanical mirrors. If he can succeed in producing something called "squeezed light," an exotic type of light that can be made by bouncing individual photons off these mirrors, it could have a wide range of applications. Some of these include telecommunications and unbreakable encryption systems — exactly the kinds of technologies that interest the DoD.

"Jack Harris has invented a novel new way to couple light to the motion

of a mechanical object," explained Steven Girvin, Yale's deputy provost for science and technology. "His technique has opened up the possibility of being able to measure [quantum properties](#) of macroscopic mechanical objects."

Last month, Harris was also awarded Yale's Arthur Greer Memorial Prize for his groundbreaking research and outstanding teaching. In addition, he was named one of the country's "20 Best Brains Under 40" by Discover Magazine last year.

"Jack Harris is one of our outstanding young faculty members — a gifted teacher, an impressive experimentalist, and a genuinely nice person whom it's a pleasure to have as a colleague," said Meg Urry, chair of Yale's physics department.

Provided by Yale University ([news](#) : [web](#))

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