

Physics Student's Research Garnering Acclaim

BOCA RATON, Fla. (May 17, 2017) – Physicists may become familiar with the work of an FAU doctoral student, thanks to the attention two of his publications have garnered.

The journal [*Optics Letters*](#) ranked Ph.D. student Behzad Khajavi's article, "Determining Topological Charge of an Optical Beam Using a Wedged Optical Flat," among the top ten downloaded papers in April.



For various physics experiments and applications, laser beam electromagnetic waves are manipulated such that their behavior is described by mathematical functions, such as the Laguerre-Gauss functions. However, these beams must be experimentally recognized and diagnosed. In this publication, Khajavi presented a method, one he describes as more robust and simple than others, to determine the magnitude and sign of the topological charge of an optical beam using a wedged optical flat and two confocal lenses.

The cover of the *Journal of Optics* featured his article, "High-order Disclinations in Space-Variant Polarization" on its cover.

Reflecting on the FAU Experience

"I was admitted as a Ph.D. student to the Physics Department in 2012. I was interested in the research of Professor Warner Miller, so I asked him to be my advisor," Khajavi said.

Miller, associate dean for research and partnership initiatives in the Charles E. Schmidt College of Science, agreed to be his advisor. Miller introduced him to his co-advisor, Professor Enrique Galvez, Ph.D., of Colgate University. A productive collaboration took hold. Khajavi co-authored the aforementioned journal articles with Galvez.

"Ever since, everybody in the Physics Department, College of Science, Graduate College and the International Student Office helped me to make this happen. I'm so grateful for this and appreciate all the work that they did."

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