



SPIE Early Academic Career Achievement Award

ICFO Alumnus Dr Carmelo Rosales-Guzman receives award for significant and innovative technical contributions to the field of structured light and its applications

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SPIE, the international society for optics and photonics has recently awarded the SPIE Early Career Achievement Award to ICFO Alumnus Dr Carmelo Rosales-Guzman. This award is given annually in recognition of significant and innovative technical contributions in the engineering or scientific fields of relevance to SPIE. It recognizes excellence in academia for contribution(s) that have been made within the first 5 years of a faculty appointment after completing training

Carmelo Rosales-Guzman was a PhD student at ICFO in the Quantum Engineering of Light group led by UPC Prof at ICFO Dr Juan P. Torres. He defended his PhD in 2015, and then worked as a postdoctoral fellow in SPIE Fellow Andrew Forbes' Structured Light Laboratory at the University of the Witwatersrand (S. Africa). In 2018, he became an associate professor at the Harbin University of Science and Technology (China), and, in 2020, a principal investigator at

Centro de Investigaciones en Optica (Mexico). His areas of interest and research include laser beam shaping, optical communications, optical angular momentum, optical metrology, vector light beams, and classical entanglement.

“Carmelo has been amongst the most successful young researchers I have ever had the privilege to work with,” says Forbes. “He pioneered the creation, detection, manipulation, and application of vectorial structured light, and has established new laboratories in structured light in four continents and, tellingly, in three developing countries. His desire to give back and grow photonics in underrepresented communities is admirable, while the research contributions he has made are remarkable. His many seminal works are highly cited by the community, while his impact at the country level has been and continues to be exceptional: he was a fantastic mentor for South African students before moving to China and establishing new photonics labs and training a new generation of students there; in Mexico, he has already established national collaborations and brought structured light into the Centro de Investigaciones en Optica. It's unusual for a researcher to accomplish so much so early in their career: The high level of his science, produced and applied in developing countries, makes him an excellent role model not just for other scientists, but for underrepresented groups across the globe.”

Congratulations Carmelo!