

Dr. Robert Q. Fugate

Kirtland 2013

Dr. Robert Q. Fugate has a 48-year career in electro-optics research, 35 years as a civilian scientist at the Air Force Research Laboratory and now consultant for DoD, academia, and industry. He is internationally recognized as the “Father of Laser Guide Star Adaptive Optics,” the key technology that has enabled a revolution in extremely large ground-based telescopes to see through the turbulent atmosphere clearly. At AFRL he built a team of researchers and lead the development of practical adaptive optics systems for space situational awareness at the Starfire Optical Range, Kirtland AFB, NM. He has been the DoD’s strongest advocate of adaptive optics technology transfer to the astronomy community. Recently he served as the Chairman of the Laser Committee at the Project Breakthrough Starshot, an ambitious multi-decade effort to send small spacecraft to the nearest stars at 20% light speed using laser propulsion from a gigawatt class ground based laser system. He has authored over 100 technical papers, given countless invited talks, and received many awards, including a Distinguished Presidential Rank Award. He is a member of the National Academy of Engineering. The asteroid 6770 was renamed 6770 Fugate to honor his contributions to the astronomy community. Bob has a passion for photography especially migratory birds, southwestern landscapes, and the night sky (imagine that). He has two international magazine covers, is an invited contributor to Healing Images, and has won the Photographic Society of America’s highest award. You can see some of his work at <https://www.rqfphoto.com/>.