

Ali Mardan Dezfouli



Information

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Education

(2024-Present) Research Fellow - Institute of Physics (IFS), Femtosecond Laser Lab, Zagreb, Croatia
(2021-2024) PhD in Applied Optics - Institute of Physics (IFS), Coherent Optics Digital Holography Lab, Croatia
(2017-2020) Research Assistant - Optics Research Center, IASBS, Zanjan, Iran
(2014-2017) M.Sc. in Electro-Optics Engineering - Malek-Ashtar University of Technology (MUT), Isfahan, Iran
(2010-2014) B.Sc. in Solid-State Physics - University of Zanjan (ZNU), Zanjan, Iran

Paper & Posters

- **2026** – Dezfouli, A.M.; Skenderović, H. *Fabrication of high-Efficiency Volume Bragg Grating Inside Glass Using FS laser (in preparation)*
- **2025** – Dezfouli, A.M.; Rakić, M.; Skenderović, H. *Probing Optical Vortex Beams via a Controllable Anisotropic Diffractive Phase Element*, arXiv:2509.01334
- **2025** – Dezfouli, A.M.; Rakić, M.; Skenderović, H. *Complete modal characterization in Laguerre-Gaussian Beams Using a Paraboloid Off-Axis Reflector*, Appl. Phys. B
- **2025** – Dezfouli, A.M.; Rakić, M.; Skenderović, H. *Simultaneous Characterization of Non-collinear Spatially Multiplexed Vortex Beams*, Journal of optics
- **2024** – Dezfouli, A.M.; Skenderović, H. *Higher-order topological charge detection using off-axis parabolic mirror*, Appl. Phys. Lett.
- **2024** – Dezfouli, A.M.; Demoli, N.; Abramović, D.; Rakić, M.; Skenderović, H. *Digital Holographic Interferometry for Micro-Deformation Analysis of Morpho Butterfly Wing*, Photonics
- **2022** – Dezfouli, A.M.; Abramovic, D.; Rakić, M.; Skenderović, H. *Detection of the orbital angular momentum state of light using sinusoidally shaped phase grating*, Appl. Phys. Lett. (Invited)
- **2020** – Amiri, P.; Dezfouli, A.M.; Rasouli, S. *Efficient characterization of optical vortices via diffraction from curved-line linear grating*, J. Opt. Soc. Am. B (OSA Spotlight)
- **2019** – Hebri, D.; Rasouli, S.; Dezfouli, A.M. *Theory of diffraction of vortex beams from structured aperture and generation of elegant elliptical Hermite-Gaussian beams*, J. Opt. Soc. Am. A

- **2023** – Dezfouli, A.M.; Rakić, M.; Abramović, D.; Demoli, N. *Dynamic surface deformation measurement using digital holographic interferometry* (Poster)
- **2023** – Rakić, M.; Radatović, B.; Dezfouli, A.M.; Abramović, D.; Delač, I.; Šrut Rakić, I.; Skenderović, H. *Gold on glass as a sample for the calibration of digital holographic 3D mapping* (Conference)
- **2023** – Rakić, M.; Dezfouli, A.M.; Abramović, D.; Demoli, N.; Pantelić, D.; Skenderović, H. *Biological nanostructure in combination with holography for thermal imaging camera* (Poster)

Visits

2016	Structured Light and Matter Workshop, IASBS, Iran
2019	International Day of Light Workshop, Tehran, Iran
2022	Laser Congress, Barcelona, Spain (Invited paper)
2023	Siegman School on Lasers, Dublin, Ireland (Poster)
2023	Laser World of Photonics, Munich, Germany
2024	SPIE Photonics Europe, Strasbourg, France (Poster)

Languages

Persian	native
English	fluent-(IELTS 6.0)
Croatian	elementary
German	elementary

Teaching

2011-2012	Physics Lab Assistant, ZNU, Iran
2013-2014	Calculus, Fundamentals of Physics, ZNU, Iran

Experience

- matlab, python, labView, mathematica, zemax, CAD
- Experimental optics & optical system design
- 3D scanning & printing, CAD design