



# Ehsan Ahadi Akhlaghi

**Assistant Professor**

**IASBS, Department of Physics**

## Publications

### Journals

---

- Saadati-Sharafteh, Fazel and Amiri, Pari and Akhlaghi, Ehsan A and Azizian-Kalandaragh, Yashar, "A new criterion for self-healing quantification of structured light beams", Journal of Optics, Vol. 25, NO. 3, 2023
- Saadati, Fazel and Amiri, Pari and Akhlaghi, Ehsan A and Azizian-Kalandaragh, Yashar, "A new criterion for self-healing quantification of structured light beams", Journal of Optics, Vol. 30, NO. 2, 2023
- Rezaei, Nadim and Aakhte, Mostafa and Charsooghi, Mohammad and Borzouei, Hadi and Akhlaghi, Ehsan A, "3D particle tracking using transport of intensity equation (TIE)", Optics Express, Vol. 30, NO. 2, 2022
- Siavashani, Morteza J and Naghedi, Iman and Abbasian, Vahid and Akhlaghi, Ehsan A and Charsooghi, Mohammad A and Tavassoly, Mohammad Taghi and Moradi, Ali-Reza, "3D imaging using scanning diffractometry", Scientific Reports, Vol. 11, NO. 1, 2021
- Najafi-Nezhad, F and Azizian-Kalandaragh, Y and Akhlaghi, Ehsan A and Amiri, P and Porfirev, A and Khonina, S and Najarbashi, G, "Superposition of shifted Laguerre--Gaussian beams", Optik, Vol. 227, NO. 13, 2021



- Hosseini-Saber, SMA and Akhlaghi, Ehsan A and Saber, Ahad, "Diffractometry-based vortex beams fractional topological charge measurement", *Optics Letters*, Vol. 45, NO. 13, 2020
- Malekmohammadi, Milad and Akhlaghi, Ehsan A and Soltani, Jamal and Hajizadeh, Faegheh, "Escape velocity sorting in optical tweezers system using a home-made piezo mirror", *Journal of Optics*, Vol. 22, NO. 5, 2020
- Saadati-Sharafteh, Fazel and Borhanifar, Abdollah and Porfirev, Alexey P and Amiri, Pari and Akhlaghi, Ehsan A and Khonina, Svetlana N and Azizian-Kalandaragh, Yashar, "The superposition of the Bessel and mirrored Bessel beams and investigation of their self-healing characteristic", *Optik*, Vol. 208, NO. 12, 2020
- Badali, Y and Azizian-Kalandaragh, YASHAR and Akhlaghi, Ehsan A and Alt{\i}ndal, {\c{S}}, "Ultrasound-assisted method for preparation of Ag 2 S nanostructures: fabrication of Au/Ag 2 S-PVA/n-Si Schottky barrier diode and exploring their electrical properties", *Journal of Electronic Materials*, Vol. 49, NO. 12, 2020
- Abbasi, Zahra and Saber, Ahad and Akhlaghi, Ehsan A, "Simultaneous measurement of the light wavelength and the apex angle of Fresnel double mirror using Fresnel diffraction", *International Journal of Thermal Sciences*, Vol. 135, NO. 12, 2019
- Malek Mohammadi, Milad and Ahadi Akhlaghi, Ehsan and Hajizadeh, Faegheh, "Fabrication of piezoelectric mirror for multiple-beam optical tweezers", *International Journal of Thermal Sciences*, Vol. 135, NO. 12, 2019
- Hamidi, Arsham and Akhlaghi, Ehsan Ahadi, "Fabrication and Calibration a Spectral-Domain Optical Coherence Tomography in visible range", *International Journal of Thermal Sciences*, Vol. 135, NO. 12, 2019



- Abbasian, Vahid and Bazzar, Maasoomah and Akhlaghi, Ehsan A and Charsooghi, Mohammad A and Moradi, Ali-Reza, "Detection of Presence of Nanoparticles in Polymeric Composites by Digital Holography", International Journal of Thermal Sciences, Vol. 135, NO. 12, 2019
- Jafariani, Fatemeh and Akhlaghi, Ehsan A and Charsooghi, Mohammad A, "Temperature distribution measurement in asymmetric geometry using perturbation theory based on an optical method", International Journal of Thermal Sciences, Vol. 135, NO. 12, 2019
- Akhlaghi, Ehsan Ahadi and Badali, Yosef and Altindal, Semsettin and Azizian-Kaladaragh, Yashar, "Preparation of mixed copper/PVA nanocomposites as an interface layer for fabrication of Al/Cu-PVA/p-Si Schottky structures", Physica B: Condensed Matter, Vol. 546, NO. 12, 2018
- Akhlaghi, Ehsan A and Saber, Ahad and Abbasi, Zahra, "Fresnel diffraction due to phase gradient singularity", Optics letters, Vol. 43, NO. 12, 2018
- Abbasian, Vahid and Ganjkhani, Yasaman and Akhlaghi, Ehsan A and Anand, Arun and Javidi, Bahram and Moradi, Ali-Reza, "Super-resolved microsphere-assisted Mirau digital holography by oblique illumination", Journal of Optics, Vol. 20, NO. 6, 2018
- Siavashani, Morteza J and Akhlaghi, Ehsan A and Tavassoly, Mohammad T and Hosseini, Seyed R, "Characterization of transparent thin films by low-coherent diffractometry", Journal of Optics, Vol. 20, NO. 3, 2018
- Aakhte, Mostafa and Akhlaghi, Ehsan A and Miller, H-Arno J, , "SSPIM: a beam shaping toolbox for structured selective plane illumination microscopy", Scientific reports, Vol. 8, NO. 1, 2018
- Abbasian, Vahid and Akhlaghi, Ehsan A and Charsooghi, Mohammad A and Bazzar, Maasoomah and Moradi, Ali-Reza, "Digital holographic microscopy for 3D surface characterization



of polymeric nanocomposites", *Ultramicroscopy*, Vol. 185, NO. 5, 2018

- Tahviliyan, Masoud and Charsooghi, Mohammad A and Akhlaghi, Ehsan A and Tavassoly, Mohammad Taghi, "Nanonewton force measurement using a modified Michelson interferometer", *Measurement Science and Technology*, Vol. 28, NO. 5, 2017
- Ganjkhani, Yasaman and Charsooghi, Mohammad A and Akhlaghi, Ehsan A and Moradi, Ali-Reza, "Super-resolved Mirau digital holography by structured illumination", *Optics Communications*, Vol. 404, NO. 9, 2017
- Aakhte, Mostafa and Abbasian, Vahid and Akhlaghi, Ehsan Ahadi and Moradi, Ali-Reza and Anand, Arun and Javidi, Bahram, "Microsphere-assisted super-resolved Mirau digital holographic microscopy for cell identification", *Applied optics*, Vol. 56, NO. 9, 2017
- Moradi, Amin and Akhlaghi, Ehsan A and Hajizedeh, Faegheh and Reihani, S Nader S, "Digital holography based submicron thermometry", *Optics Express*, Vol. 24, NO. 25, 2016
- Charsooghi, Mohammad A and Akhlaghi, Ehsan A and Tavaddod, Sharareh and Khalesifard, HR, "A MATLAB program to calculate translational and rotational diffusion coefficients of a single particle", *Computer Physics Communications*, Vol. 182, NO. 2, 2011
- Akhlaghi, Ehsan A and Darudi, Ahmad and Tavassoly, M Taghi, "Reconstructing the phase distribution of two interfering wavefronts by analysis of their nonlocalized fringes with an iterative method", *Optics Express*, Vol. 19, NO. 17, 2011