CV of Nándor Bokor

Personal data

Name	Nándor Bokor
Position	Associate professor
Current institution	Department of Physics, Budapest University of Technology and Economics 1111 Budapest, Budafoki út 8 Hungary
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Date of birth	21.06.1969.

Education

1993	MSc degree in electrical engineering, BME, Hungary
1999	PhD in Physics, “Monte Carlo method in computer holography”, BME Hungary

Employment

1999-2001	Postdoctoral fellow (24 months)	Weizmann Institute, Israel
2003	Postdoctoral fellow (12 months)	Weizmann Institute, Israel
2005	Visiting scientist (6 months)	Tokyo Institute of Technology, Japan
2006	Visiting scientist (2 months)	Weizmann Institute, Israel
2008-2009	Visiting scientist (10 months)	Tokyo Institute of Technology, Japan
2017	Visiting lecturer (1 month)	Waseda University, Japan
2018	Visiting scientist (7 months)	Okayama University of Science, Japan
1998-2004	Assistant lecturer	BME, Hungary
2004-2012	Assistant professor	BME, Hungary
2012-	Associate professor	BME, Hungary

Research interest

- High numerical aperture focusing
- Vectorial diffraction theory
- Fluorescence, IR and x-ray microscopy
- Holographic optical elements
- Diffuse beam shaping and concentration
- Computer-generated holograms
- Subwavelength gratings
- Special and general relativity
- Chaotic and integrable billiards
- Physics education

Teaching activity

- Physics 1, Physics 1i (mechanics, relativity, thermodynamics)
- Mechanics
- Physics 2, Physics 2i (electromagnetism, optics)
- Computational holography
- Descriptive relativity
- Curved spacetime

Memberships and professional service

- Referee of the Optical Society of America

Grants, fellowships, projects (since 1982)

2014	Research project with the Weizmann Institute, Israel, "Numerical investigation of reflective and refractive solar concentrators I"
2015	Research project with the Weizmann Institute, Israel, "Numerical investigation of reflective and refractive solar concentrators II"

Invited talks

2003	"Curved holographic optical elements for diffuse light collimation and concentration", International Conference on Advanced Optoelectronics and Lasers (CAOL 2003), Alushta, Ukraine
2012	"Dark spots in fluorescence microscopy", Chiba University, Japan

Languages

English (master), Japanese (master reading, conversational speaking), Hebrew (master reading, conversational speaking)

Scientific impact (as of 10/2018)

74 papers in refereed journals
2 book chapters
1 Japanese patent
39 conference papers
Complete list of publications: https://vm.mtmt.hu//www/index.php?lang=1&AuthorID=10041503

Five selected publications

1. Y. Iketaki, H. Kumagai, K. Jahn, N. Bokor, *Creation of three dimensional spherical fluorescence spot for superresolution microscopy using two-color annular hybrid wave plate*, Optics Letters **40**, 1057 (2015).
2. N. Bokor, Y. Iketaki, *New design method for a phase plate in super-resolution fluorescence microscopy*, Applied Spectroscopy **68**, 353 (2014).
3. N. Bokor, *Analyzing collisions using Minkowski diagrams in momentum space*, European Journal of Physics **32**, 773 (2011).

4. N. Bokor, Y. Iketaki, *Laguerre-Gaussian radial Hilbert transform for edge-enhancement Fourier transform x-ray microscopy*, Optics Express **17**, 5533 (2009).
5. N. Davidson, N. Bokor, *High numerical aperture focusing of radially polarized doughnut beams with a parabolic mirror and a flat diffractive lens*, Optics Letters **29**, 1318 (2004).