

## CV of Pál Maák

### Personal data

Name Pál Maák  
Position Associate professor  
Current institution Department of Theoretical Physics,  
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Date of birth 1971

### Education

1995 MSc degree in electric engineering, BME, Hungary  
2000 PhD in Physics “Acousto Optic Devices”, BME Hungary

### Employment

1995-2001 PhD Student BME, Hungary  
1996-1998 Visiting scientist TU Berlin, Germany  
2001 - Assitant and associate professor (2010) BME, Hungary

### Awards and prizes

1998 Ferenczy György prize  
2017 Bródy Imre prize

### Research interest

- Optical design, two-photon microscopy, optical systems, fabrication and application of acousto-optic devices
- Laser physics, laser design, ultrashort pulsed lasers and applications

### Teaching activity

- Laser physics (for students of physics)
- Laser physics (for students in engineering)
- Femtosecond and attosecond pulsed light source
- Design and construction of lasers and laser systems
- Applications of lasers
- Introduction to the physics of ultrashort laser pulses
- Laboratory courses related to laser applications
- Microscopy
- Optical signal processing and storage systems

## Students supervised

- Msc students: 15
- PhD students: Zoltán Göröcs (2011), Máté Veress, András Fehér

## Memberships and professional service

- Referee for periodicals: Applied Optics, Optics Communications, Optics Letters, Optics Express, Ultrasonics
- Member of the Eötvös Roland Physical Society in Hungary
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## Grants, fellowships, projects (since 1982)

1996-1998	TEMPUS Scholarship
2001-2003	Bolyai postdoctoral scholarship
2004-2006	Békéssy György scholarship

## Languages

English (master), German (master), Romanian (master), Spanish (beginner)

## Scientific impact (as of 01/2019)

24 papers in refereed journals

6 international patents (including EU and US)

10+ invited conference talks and seminars

Total number of independent citations: 292

H-index:

Complete list of publications: <https://vm.mtmt.hu/www/index.php?lang=1&AuthorID=10011238>

## Five selected publications

1. Szalay G , Judak L , Katona G , Ocsai K , Juhasz G , Veress M , Szadai Z , Feher A , Tompa T , Chiovini B , Maak P , Rozsa B “Fast 3D Imaging of Spine, Dendritic, and Neuronal Assemblies in Behaving Animals” NEURON 92:(4) pp. 723-738. (2016)
2. Kusnyerik A , Rozsa B , Veress M , Szabo A , Nemeth J , Maak P “Modeling of in vivo acousto-optic two-photon imaging of the retina in the human eye.” OPTICS EXPRESS 23:(18) pp. 23436-23449. (2015)
3. Chiovini B , Turi GF , Katona G , Kaszas A , Palfi D , Maak P , Szalay G , Szabo MF , Szabo G , Szadai Z , Kali S , Rozsa B “Dendritic spikes induce ripples in parvalbumin interneurons during hippocampal sharp waves.” NEURON 82:(4) pp. 908-924. (2014)
4. Mihajlik G , Barocsi A , Maak P “Complex, 3D modeling of the acousto-optical interaction and experimental verification” OPTICS EXPRESS 22:(9) pp. 10165-10180. (2014)
5. Katona G , Szalay G , Maak P , Kaszas A , Veress M , Hillier D , Chiovini B , Vizi ES , Roska B , Rozsa B “Fast two-photon in vivo imaging with three-dimensional random-access scanning

in large tissue volumes” NATURE METHODS 9:(2) pp. 201-208. (2012)