

## PERSONAL INFORMATION

Michal CIFRA born 19<sup>th</sup> July 1983, Slovakia

## EDUCATION/ACADEMIC DEGREES

- 2009 **PhD. in Radioelectronics**, Department of Electromagnetic Field, Faculty of Electrical Engineering, Czech Technical University in Prague, Czechia
- 2006 **M.Sc. (Ing.) in Biomedical Engineering**, Faculty of Electrical Engineering, University of Žilina, Slovakia

## POSITIONS

- 2013 – now **Team leader/Senior scientist** – Inst. Photonics and Electronics, Czech Acad. of Sci, Czechia
- 2014 – 2015 **Visiting researcher**, 8 months, University of Chicago, James Franck Institute / Physical Sciences Div. (Dept. of Chemistry), Chicago, USA
- 2013 Sept. **Visiting researcher**, National Institute for Materials Science, Tsukuba, Japan
- 2010 – 2012 **Postdoctoral researcher**, Institute of Photonics and Electronics, CAS, Czechia
- 2010 Sept. **Erasmus Mundus visiting researcher**, State University of Campinas, Brazil
- 2005 – 2010 3 months total – **Visiting student researcher**, International Institute of Biophysics, Neuss, Germany
- 2004 – 2005 7 months total - **Student researcher (HiWi) / Socrates Erasmus fellow / Leonardo da Vinci trainee**, ELCAT GmbH & Institut für Hochfrequenztechnik, RWTH Aachen, Germany

## PROJECTS

- 2020 – 2024 Czech Science Foundation - 20-06873X – *SubTHz on-chip devices for controlling protein nanomachines*, 1.9 MEUR, **PI**
- 2018 – 2020 Czech Science Foundation - 18-23597S – *High-frequency microdevices for controlling protein nanomotors*, 206 kEUR, **PI**
- 2017 – 2019 Czech Science Foundation - 17-11898S – *Nanosecond electric pulses for modulation of microtubule dynamics*, 110 kEUR share, **co-PI**
- 2017 – 2021 COST Action CA15211 Atmospheric Electricity Network: coupling with the Earth System, climate and biological systems, **management committee member**
- 2015 – 2017 Czech Science Foundation - 15-17102S – *Radiofrequency characterization of microtubules using micro- and nanosensors*, 180 kEUR, **PI**
- 2015 – 2021 2 joint Research Projects Czech & Slovak Academy of Science: 1. *Exploring physical basis of electromagnetic field interactions with biomolecules, cells and tissue*, 2. *Novel integrated approaches for research of biomedical effects of pulsed electric fields*
- 2014 – 2018 COST Action BM1309 European network for innovative uses of EMFs in biomedical applications, **management committee member**
- 2013 – 2015 Czech Science Foundation - 13-29294S - 2013 – 2015 - *Photonic Biosignals: measurement and characterization*, 280 kEUR, **PI**
- 2010 – 2012 Czech Science Foundation - P102/10/P454 – *Postdoc project - Measurement and Analysis of Local Electric Oscillations and Optical Emission of Biomolecular Nanostructures*, 72 kEUR, **PI**

## INVITED / TRAVEL-COST-COVERED TALKS

- 2022: 3 *XXVII Int. Symp. on Bioelectrochem. and Bioenergetics*, Antwerpen, Belgium, 4.-7. 4. *ATAP-RASC URSI*, Gran Canaria, 29.5.-3.6., *IEEE IMBioC 16.5.-18.5.*, 2022
- 2021: 4 *GASS URSI*, Italy, 28.8.- 4.9.; *XXVI. Ann. Cong. Czech and Slovak Socs Biochem & Mol, Biol*, CR, 29.8.-1.9.; *4<sup>th</sup> Aquaphotomics Int Symp*, Japan, 20-22 Mar; *IEEE Sensors*, AU, 1-4 Nov
- 2019 *XXV Int. Symp. on Bioelectrochemistry and Bioenergetics*, Limerick, Ireland, 26-30 May,
- 2019 *Int. Winterschool on Bioelectronics*, Kirchberg in Tirol, Austria, 16-23 March
- 2018 *3<sup>rd</sup> Aquaphotomics International Symposium*, Awaji, Japan, 2-6 December
- 2017 *Conf. on the Physics, Chemistry and Biology of Water*, Sofia, Bulgaria, 26-29 October, 8<sup>th</sup>

- 2017 *International THz-Bio workshop*, Frascati, Italy, 4-6 October  
2016 *International Workshop on Ultra-weak Photon Emission*, Tehran, Iran, 7-9 February  
2015 *Cong. Internacional en Tecnología, Innovación y Docencia*, Mexico 20-24 April  
2012 *Biophysical Aspects of Complexity in Health and Disease* / Lugano, Switzerland, 18-19 May  
2011 *Conf. on the Physics, Chemistry and Biology of Water* / Vermont, USA, 20-23 October  
2011 *Electromagnetic fields and Quantum phenomena in the BioSystems* / Poznań, Poland, 20 May  
2010 *Summer School on Biophotonics and Applications of Biophotons*, International Institute for Biophysics / Neuss, Germany, 1-6 August  
2008 – 2015 9 other invited conference talks / local seminars in Czechia, France, Japan, Mexico, USA, UK

#### FELLOWSHIPS, AWARDS, HONORS

- 2022 Justin Teissié Award, ISBETT  
2021 Life member, SPIE  
2019 Best paper award for 2019 from Institute of Photonics and Electronics, CAS  
2019 Senior member of Optica (former Optical Society of America)  
2016 Otto Wichterle Award from the Czech Academy of Sciences in the field of Mathematics, Physics and Earth Sciences  
2015 IEEE, Senior Member  
2015 International Travel Award to support attendance to the Biophysical Society Annual meeting 2015 and to present outstanding achievements in biophysics research, Biophysical Society / Baltimore / USA (competition success rate: 39%)  
2014 European Molecular Biology Laboratory Advanced Training Centre Corporate Partnership Programme Fellowship / Heidelberg / Germany (success rate in program: 12%)  
2008 Young Scientist Award / URSI – International Union of Radio Science, Belgium/USA

#### ORGANIZATION OF SCIENTIFIC MEETINGS

Chair /Local organizer /Scientific committee member of 11 scientific meetings with 1000 participants in total

#### TEACHING, MENTORSHIP OF STUDENTS AND POSTDOCS

**Molecular Bioelectromagnetism** course founder, co- or supervisor of **students: 12 master** (1 ongoing), **6 doctoral** (3 graduated, 1 with distinction / 3 ongoing), **5 postdocs** (3 ongoing)

#### MEMBERSHIP IN SCIENTIFIC SOCIETIES, JOURNAL EDITORIAL BOARD

**Senior Member** of **IEEE**, **chair** (2018-2021) & **secretary** of **CSS IEEE EMB** (societies: Engineering in Biology and Medicine (2015 - ), Microwave Theory and Techniques (2015 - ), Photonics Society (2013 - ), Life Sciences Community (2013 - ), Czechoslovakia section (2007 - ), **associate editor** Scientific Reports, IEEE J. Electromagnetics, RF and Microwaves in Medicine and Biology

**URSI** (Int. Union of Radio Science): **Com K TAC member**, **secretary of the national committee**

**Member** (ISEBTT, Bioelectrochemical Society, BioEM Society, Biophysical Society, European Microwave Association, International Society for Bioelectromagnetism, Czechoslovak Biological Society, Optica, SPIE)

#### BIBLIOGRAPHY

108 documents in Web of Science, guest editor for 2 special issues of different journals, 2x book editor.

**Citations** 1266 (WoS), 2613 (Google Scholar), **Hirsch index** 18 (WoS), 24 (Google Scholar)

**Publications:** see ORCID: [0000-0002-8853-9523](https://orcid.org/0000-0002-8853-9523) / Researcher ID: [D-4416-2013](https://orcid.org/D-4416-2013) [Google Scholar](https://scholar.google.com/citations?user=...)