## Personal details

Surname & Name : **Song Mingzhao**

Date of birth : 1989.02.08

## Education

2008 – 2012, B.Eng.

Organization : Zhejiang University (ZJU), China

Major : Information and Communication Engineering

Thesis title : Investigation of a wedge-to-wedge plasmonic waveguide

2012 – 2015, M.S

Organization : ITMO University, Russia

Major : Photonics and Optoinformatics

Thesis title : A study of wireless power transfer using dielectric resonators

2015 – present, Ph.D

Organization : ITMO University, Russia

Major : Radiophysics

Thesis title : Investigation of wireless power transfer systems based on dielectric resonators and metamaterials

## Work experience

2011.11-2012.06

Organization : RFNE Laboratory, Zhejiang University

Research interest : Theoretical and numerical studies of plasmonic waveguide

2014.02- 2015.09

Organization : Metamaterials Laboratory, ITMO University.

Position : Research Assistant

Research interest : Wireless power transfer, dielectric resonators

2015.09- present

Organization : Department of Nanophotonics and Metamaterials, ITMO University

Position : Research Engineer

Research interest : Near field wireless power transfer, Metamaterial, Metasurface

## Scholarships / Awards

- Excellent student scholarship in Zhejiang University (2008-2011) … … China
- Research and Innovation scholarship (2011), Zhejiang University… … China
- 2nd place prize of “National Undergraduate Electronic Design Contest in 2011”… … China
- TOP100 Bachelor Thesis Award (100 out of 5100), 2012, Zhejiang University… … China
- Dynasty Foundation Scholarship for Young Physicists (2014-2015), (the only non-CIS winner)… … Russia
- Honored Master Diploma (2015), ITMO University… … Russia
- Federation Funds for PhD Education (2015-2019), Ministry of Education… … Russia
- Travel Grant to the conference IEEE APS-URSI 2016 … … U.S.A.
- Finalist of Best Student Paper Contest in IEEE APS-URSI, 2016 … … U.S.A
- Travel Grant to the conference Metamaterials’ 2017… … France
- Best Student Paper Award (first prize) in PIERS 2017, St. Petersburg… … Russia.

## Professional Skills

- Microwave experiments: sample fabrication, measurements, data processing
- Simulation software: CST, COMSOL
- Programming: MATLAB

**Publication List**

## Journal papers

1. M. Song, K. Baryshnikova, A. Markvart, E. Nenasheva, P. Belov, C. Simovski, P. Kapitanova, 'Smart table based on metasurface for wireless power transfer', ***Phys. Rev. Appl.*** 5, 054046, (2019) **[IF= 4.8]**
2. M. Song, P. Belov, P. Kapitanova, "Wireless power transfer inspired by the modern trends in electromagnetics", ***Appl. Phys. Rev.***, 4, 021102, (2017) **[IF = 13.6]**
3. M. Song, P. Belov, P. Kapitanova, "Wireless power transfer based on dielectric resonators with colossal permittivity", ***Appl. Phys. Lett.***, 109, 223902, (2016) **[IF = 3.41]**
4. M. A. Gorlach, M. Song, A. P. Slobozhanyuk, A. A. Bogdanov, P. A. Belov, "Topological transition in coated wire medium", ***Physica Status Solidi (RRL)***, 10, 900-904, (2016) *(Back Cover)* **[IF = 2.58]**
5. M. Song, P. Kapitanova, I. Iorsh, E. Nenasheva, P. Belov, "Wireless power transfer based on magnetic quadrupole coupling in dielectric resonators", ***Appl. Phys. Lett.***, 108, 023902, (2016) **[IF = 3.41]**
6. O. Yermakov, A. Ovcharenko, M. Song, A. Bogdanov, I. Iorsh, Y. Kivshar, "Hybrid waves localized at hyperbolic metasurfaces", ***Phys. Rev. B***, 91, 235423, (2015) *(Editorial Suggested)* **[IF = 3.72]**

## Conference papers

1. A. Markvart, **M. Song**, S. Kosulnikov, S. Glybovski, P. Belov, C. Simovski and P. Kapitanova, 'Metamaterials-inspired resonator for wireless power transfer systems', J Phys. Conf. Ser., vol. 1092, 12083, (2018)
2. **M. Song**, P. Belov, P. Kapitanova, "Colossal permittivity resonators for wireless power transfer systems", Antennas and Propagation (EUCAP), 904-907, (2017)
3. **M. Song**, P. Belov, P. Kapitanova, "Resonators for wireless power transfer systems", Radio and Antenna Days of the Indian Ocean (RADIO), 1-2, (2017)
4. **M. Song**, P. Kapitanova, "Wireless power transfer system based on colossal permittivity resonators", 11th International Congress on Metamaterials, 325-327, (2017)
5. **M. Song**, P. Belov, P. Kapitanova, C. R. Simovski, "Wireless power transfer through multipole coupling in dielectric resonators", Progress in Electromagnetics Research Symposium (PIERS), 1632-1635, (2017)
6. **M. Song**, P. Belov, P. Kapitanova, "Multipolar modes in dielectric disk resonator for wireless power transfer", AIP Conference Proceedings, vol. 1874, pp. 30037, (2017)
7. **M. Song**, P. Belov, P. Kapitanova, "Dielectric resonators for mid-range wireless power transfer application", Wireless Power Transfer Conference, 1-3, (2017)
8. P. Kapitanova, **M. Song**, P. Belov, "Experimental investigation of wireless power transfer systems based on dielectric resonators", 46th EuMC, 755-758, (2016)
9. P. Kapitanova, **M. Song**, I. Iorsh, P. Belov, "Wireless power transfer system based on ceramic resonators", Metamaterials' 2016, 151-153, (2016)
10. **M. Song**, P. Belov, P. Kapitanova, "High permittivity dielectric resonators for wireless power transfer system", IEEE APS-URSI 2016,
11. **M. Song**, P. Kapitanova, I. Iorsh, P. Belov, "Metamaterials for wireless power transfer", Days on Diffraction (DD), pp. 323-327, 2015
12. P. Kapitanova, **M. Song**, I. Iorsh, P. Belov, "Metamaterials and resonators for wireless power transfer", Radio and Antenna Days of the Indian Ocean (RADIO), (2015)
13. P. Belov, **M. Song**, P. Kapitanova, I. Iorsh, "Application of High-Q dielectric resonators for wireless power transfer system", Microwave and Optoelectronics Conference (IMOC), 2015 SBMO/IEEE MTT-S International, (2015)
14. **M. Song**, R. Hao, J. Jin, E.P. Li, "A wedge-to-wedge plasmonic waveguide for subwavelength confinement and long-range propagation" Asia Communications and Photonics Conference, vol. AF4A, pp. AF4A.23, (2012)