**AIGERIM JANDALIYEVA**

|  |  |
| --- | --- |
| Date of birth: 20 November 1998Belorusskaya st. 6, St. Petersburg, 195298, Russia | Mobile phone:+7 999 239 83 51a.jandaliyeva@metalab.ifmo.ru |

<https://physics.itmo.ru/en/personality/aigerim_jandaliyeva>

ResearchGate: <https://www.researchgate.net/profile/Aigerim-Jandaliyeva/research>

My main research interests are in the field of applied electromagnetics, with a focus on investigating and developing novel devices based on metamaterials, particularly for applications in wireless power transmission and magnetic resonance imaging. My current projects revolve around controlling the electromagnetic field distribution within wireless volumetric resonators based on metamaterials. I am the lead developer of a wireless charging room and am actively involved in several research teams dedicated to developing wireless resonators for enhancing scan quality in magnetic resonance imaging.

**EDUCATION BACKGROUND**

|  |  |
| --- | --- |
| **Name of organization:** Saint PetersburgNational Research University of Information Technologies, Mechanics and Optics (ITMO University)**Contact data:** 49 Kronverkskiy av*.*, Saint Petersburg, 197101, Russia **Website:** <http://en.ifmo.ru/>**Title of qualification:** Ph.D. in Antennas, microwave devices and their technologies | **September 2022 – present time** |
| **Name of organization:** ITMO University**Title of qualification:** MSc in Radio-frequency systems and devices**Title of thesis: Control of radio-frequency electromagnetic field distribution in volumetric resonators based on metamaterials** | **September 2020 –** **June 2022** |
| **Name of organization:** Saint Petersburg Electrotechnical University “LETI”**Title of qualification:** [BSc](https://www.multitran.ru/c/m.exe?a=118&t=1698350_1_2) in Electronics and nanoelectronics **Title of graduation work:** Investigation of thermal processes at magnetron sputtering in argon gas | **September 2016 –** **June 2020** |

**EMPLOYMENT HISTORY**

|  |  |
| --- | --- |
| **Title:** Engineer and Junior Researcher**Work place:** ITMO University**Contact data:** 49 Kronverkskiy av*.*, Saint Petersburg, 197101, Russia **Main activities and responsibilities:** numerical and experimental studies of the volumetric resonators based on metamaterials for Magnetic Resonance Imaging and Wireless Power Transmission | **November 2021 –** **Present time** |
| **Title:** Engineer**Work place:** Educational and Scientific Laboratory of Physics and Technology of Oxide Thin Film Heterostructures, SPbETU “LETI”**Contact data:** 5 Professor Popov st., St. Petersburg, 197376, Russia**Main activities and responsibilities:** numerical and experimental studies of the technology of deposition of thin films, thin film heterostructures and their physical properties | **October 2019 –** **May 2020** |

**LIST OF PUBLISHED AND ACCEPTED JOURNAL PAPERS**

3. **Volumetric wireless coils for breast MRI: A comparative analysis of metamaterial-inspired coil, Helmholtz coil, ceramic coil, and solenoid**
A. Jandaliyeva, V. Puchnin, A. Shchelokova, *Journal of Magnetic Resonance*, **359**, 107627 (2024)
[DOI: 10.1016/j.jmr.2024.107627] [IF: 2.734, SJR: 0.818]

2. **Quadrature Tx/Rx wireless coil: design concept and application for bilateral breast MRI at 1.5 T material-inspired volumetric resonators**
V. Puchnin, A. Jandaliyeva, A. Hurshkainen, G. Solomakha, A. Nikulin, P. Petrova, A. Andreychenko, A. Shchelokova, *Magnetic Resonance in Medicine,* **89**, 1251-1264 (2023)

[DOI: [10.1002/mrm.29507](https://doi.org/10.1002/mrm.29507)] [IF: 3.737, SJR: 1.504]

1. **Control of the near magnetic field pattern uniformity inside metamaterial-inspired volumetric resonators**

A. Jandaliyeva, V. Puchnin, A. Slobozhanyuk, A. Shchelokova, *Photonics and Nanostructures - Fundamentals and Applications*, **48**, 100989 (2021)
[DOI: [10.1016/j.photonics.2021.100989](https://doi.org/10.1016/j.photonics.2021.100989)] [IF: 3.008, SJR: 0.553]

**LIST OF REFEREED PROCEEDINGS AND ORAL PRESENTATIONS**

5. **Room-Sized Helmholtz-Type Resonator for Ubiquitous Wireless Power Transfer**
A. Jandaliyeva, N. Mikhailov, A. Vdovenko, M. Siganov, E. Maiorov, P. Seregin, A. Shchelokova, P. Belov
*WIRELESS POWER TECHNOLOGY CONFERENCE AND EXPO (WPTCE2024),* 08.05.2024 – 11.05.2024, Kyoto, Japan

4. **Design and Demonstration of the Volumetric Resonator With Uniform Magnetic Field Distribution for Wireless Power Transfer**
A. Jandaliyeva, A. Vdovenko, M. Siganov, M. Udrov, L. Suleiman, P. Seregin, A. Shchelokova, P. Belov
*WIRELESS POWER TECHNOLOGY CONFERENCE AND EXPO (WPTCE2024),* 08.05.2024 – 11.05.2024, Kyoto, Japan

3. **Multi-Object Charging in Room-Sized Weakly Coupled WPT System**
N. Mikhailov, M. Abrosimova, A. Jandaliyeva, M. Siganov, P. Belov, A. Shchelokova
*IEEE WIRELESS POWER TECHNOLOGY CONFERENCE AND EXPO (WPTCE2024),* 08.05.2024 – 11.05.2024, Kyoto, Japan

2. **Control of the Electromagnetic Field Distribution inside Volumetric Resonators Based on Novel Materials**

A. Jandaliyeva, V. Puchnin, A. Slobozhanyuk, A. Shchelokova

*Metamaterials* 2022, 12.09.2022-17.09.2022, Siena, Italy

1. **Bilateral quadrature wireless coil for breast MRI**

V. Puchnin, A. Jandaliyeva, A. Hurshkainen, G. Solomakha, A. Shchelokova

*International Conference on Electromagnetics in Advanced Applications (ICEAA* 2022), 05.09.2022-09.09.2022, Cape Town, South Africa

[DOI: 10.1109/ICEAA49419.2022.9900038]

**PATENTS**

2. Wireless power transmission device

A. Jandaliyeva, V. Puchnin, A. Shchelokova, P. Belov (2023)

<https://patents.google.com/patent/RU2802055C1/en>

1. Wireless RF Coil for Magnetic Resonance Imaging

V. Puchnin, A. Shchelokova, A. Jandaliyeva, A. Hurshkainen, G. Solomakha, A. Slobozhanyuk (2022) <https://patents.google.com/patent/RU214274U1/en?oq=RU+214274+U1>

**SKILLS**

Languages: Russian, English

Program Software: CST MICROWAVE STUDIO, Matlab, COMSOL Multiphyscs, Blender, LabVIEW, AWR Design Environment, AutoCAD, QUQS