

**PhD position at Physics and Engineering Department  
ITMO University, Saint Petersburg, Russia <https://en.itmo.ru/>**

I. Brief description:

<i>Start date:</i>	September, 1, 2021
<i>PhD advisor:</i>	Dr. Maxim Gorlach, Assistant Professor, <a href="https://physics.itmo.ru/ru/personality/maksim_gorlach">https://physics.itmo.ru/ru/personality/maksim_gorlach</a> <a href="https://scholar.google.ru/citations?user=DipsAg8AAAAJ&amp;hl=ru">https://scholar.google.ru/citations?user=DipsAg8AAAAJ&amp;hl=ru</a>
<i>Research area:</i>	Topological photonics. During the recent years our group has established its expertise in the area of topological photonics which opens a fascinating perspective of disorder-robust light routing and localization. Our recent studies include topological states of quantum light, higher-order topological states from microwaves to the visible and retrieval of topological invariants from the far field. Our broader research interests also include some other problems of theoretical nanophotonics such as spatially dispersive (nonlocal) response of metamaterials.
<i>Contact email</i>	<a href="mailto:m.gorlach@metalab.ifmo.ru">m.gorlach@metalab.ifmo.ru</a> and <a href="mailto:hr@metalab.ifmo.ru">hr@metalab.ifmo.ru</a>
<i>Work address</i>	Lomonosova st., 9, Saint Petersburg, Russia
<i>Salary</i>	Depends on the results of the interview.
<i>Other info</i>	Department website: <a href="https://physics.itmo.ru/">https://physics.itmo.ru/</a>

II. Requirements to PhD candidate:

*Mandatory*

*Optional*

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| 1. Previous research experience in the related area of Physics.                                    | 1. Good presentation skills.  |
| 2. At least one publication in a peer-reviewed journal.  | 2. Prior experience with such software packages as CST Microwave Studio or Comsol Multiphysics. |
| 3. Good level of English (Upper Intermediate or higher).   | 3. Strong background in quantum mechanics and quantum optics.                                   |
| 4. Prior experience with such software packages as: - Mathematica or Matlab or Python;<br>- Latex; |   |
| 5. Solid background in classical electrodynamics   |   |

### III. Work conditions

- world-class level of research evidenced by our publications in such journals as Nature Photonics, Nature Communications, Physical Review Letters and others;
- young and professional team at the Department, friendly atmosphere;
- established collaboration with the leading researchers all over the world: USA, Europe, Asia and Australia;
- possibility of business trips to the conferences or to the collaborators starting from the first year of PhD;
- the possibility to increase the salary during PhD studies by applying for the grants aimed at PhD students (in Russia PhD students have sometimes the chance to apply for grants themselves!);
- corporate teambuilding events: volleyball, table tennis as well as New Year Party and other.
- work in the historical center of Saint Petersburg