

Advisor: Diego Martínez Solís, 1st-year Ramón y Cajal fellow at UVigo.

Link to Google Scholar:

<https://scholar.google.com/citations?user=FvwuJDYAAAAJ&hl=en>

Contact: dmartinezsolis@com.uvigo.es

Place: Escola de Enxeñaría de Telecomunicación, University of Vigo, Spain.

Duration: 3/4 years.

When to start: As soon as possible.

Title of Research Topic: STUDY OF NOVEL WAVE PHENOMENA IN PHOTONIC SPACETIME METAMATERIALS

The group of Optical Communications at the University of Vigo (Spain) is looking for an ambitious and passionate graduate in Physics or Electrical/Photonics Engineering (Master's degree also desirable) with an interest in pursuing a PhD in theoretical photonics, particularly in the "hot" topic of light/matter interactions in the presence of time modulations and discontinuities ("temporal metamaterials" in the jargon of the community). The approach of the foreseen research activities will be of fundamental Science: unveiling new mechanisms of wave interactions in out-of-the-box toy models that harness space-time symmetries and dualities (or the lack thereof).

Besides being technically sound in Physics and Mathematics, the candidate should preferably be an intermediate/advanced user of one of the following: MATLAB, Wolfram Mathematica, C/C++, Python, Julia, etc, considering that no commercial software (COMSOL Multiphysics or the like) will be used in principle: the research group uses their own in-house solvers and also relies on (semi-) analytic solutions whenever possible.

Please contact Dr. Diego Martínez Solís (dmartinezsolis@com.uvigo.es) should you have any question, and send him a motivating email and your CV if you are interested in the position.