

Tiago Vilela Lima Amorim

Av. Pres. Antônio Carlos, 6627 · 31270-901 Belo Horizonte · Brazil · tiagovla@ufmg.br · +55031991599886

OBJECTIVE

Research in numerical analysis and scientific computing.

EDUCATION



- Federal University of Minas Gerais** Belo Horizonte, Brazil
Bachelor of Electrical Engineering (Emphasis in Power Electronics and Power Systems) 2011–2016
– *Undergraduate Thesis: Frequency Response Modeling of Electric Circuits Using Digital Systems*
- University of Illinois at Urbana-Champaign** Urbana-Champaign, USA
Bachelor of Electrical Engineering (Science without Borders, CAPES Scholarship) 2014–2014
- Federal University of Minas Gerais** Belo Horizonte, Brazil
Master of Electrical Engineering (CAPES Scholarship) 2018–2020
– *Dissertation: MLPG-MoM Hybrid Numerical Technique Applied to Electromagnetic Scattering*
- Federal University of Minas Gerais** Belo Horizonte, Brazil
PhD Program in Electrical Engineering (CAPES Scholarship) 2021–current
– *Thesis: Discontinuous Galerkin Method Applied to Electromagnetic Problems*

ACADEMIC EXPERIENCE

- Scientific Research Scholarship in Wireless Ad Hoc Network (2012–2012), Federal University of Minas Gerais.
- Teaching Assistant Scholarship in Electric Circuits (2013–2013), Federal University of Minas Gerais.

PUBLICATIONS

- **AMORIM, T. V. L.**; SILVA, E. J.; MOREIRA, F. J. S.. Discontinuous Galerkin Time-Domain Method in Computational Electrodynamics Scattering Problems. In: XX Brazilian Symposium on Microwave and Optoelectronics (SBMO), 2022, Natal.
- **AMORIM, T. V. L.**; MOREIRA, F. J. S.; RESENDE, U. C.. Aplicação de Técnica Sem-Malha Híbrida na Solução de Espalhamento Eletromagnético. In: XXXVII Brazilian Symposium on Telecommunications and Signal Processing (SBRT), 2019, Petrópolis.

SKILLS

- Technical Proficiency
- **Proficient:** Python, Lua, C, C++, CMake, Matlab, Git, L^AT_EX.
 - **Familiar:** Linux (Usage and Shell Scripting), Docker, Ansible, Reverse Engineering, Javascript, SQL, NoSQL, Rust.
- Linguistic Proficiency
- Portuguese (Native), English (TOEFL ITP: 602), Spanish (Basic), and French (Basic).

PROJECTS

GitHub

- Plane Wave Expansion Framework for Photonic Crystal Analysis | [GitHub](#)
- FDTD Framework for Electromagnetic Simulations | [GitHub](#)
- Analytical Solutions for Electromagnetic Scattering | [GitHub](#)
- Contributions to FEniCSx (Open Source Computing Platform for Solving PDEs) | [GitHub](#)