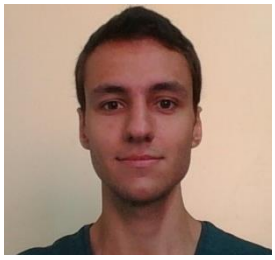
Curriculum Vitae



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Bruno Miguel da Silva Teixeira

Date of birth: 4th November 1992
Nationality: Portuguese

Academic experience

January 2016 – Present	PhD student at the University of Aveiro – I3N (Institute of Nanostructures, Nanomodelling and Nanofabrication). Title: "Ferromagnetic multilayers with programmable magnetic anisotropy" Supervisor: Dr. Prof. Nikolai Andreevitch Sobolev Expected time of graduation: December 2019.
October 2015 – December 2015	Research grant for the investigation of $NdCo_5$/Fe bilayers by ferromagnetic resonance: LabOPTO Project RECI/FIS-NAN/0183/2012–FCOMP–027494
September 2010 – July 2015	**Integrated Masters in Engineering Physics** by the University of Aveiro, Portugal: Level 7 of the European Qualification Framework ▪ **Master in Engineering Physics (17/20)** Master's Thesis: "Ferromagnetic Multilayers with programmable magnetic anisotropy", under scientific supervision of Dr. Prof. Nikolai Andreevitch Sobolev and Dr. Andrey Timopheev. ▪ **Bachelor in Sciences of Engineering Physics (15/20)** 3rd year Project: "FMR study of carbon nanotubes filled with magnetite", under scientific supervision of Dr. Prof. Nikolai Andreevitch Sobolev and Dr. Andrey Timopheev.

Scientific experience

Publications in peer-reviewed scientific journals:

B. M. S. Teixeira, A. A. Timopheev, N. F. F. Caçoilo, S. Auffret, R. C. Sousa, B. Dieny, E. Alves, N. A. Sobolev, Appl. Phys. Lett **112**, 202403 (2018).
https://doi.org/10.1063/1.5026854

A. A. Timopheev, B. M. S. Teixeira, R. C. Sousa, S. Auffret, T. N. Nguyen, L. Buda-Prejbeanu, M. Chshiev, N. A. Sobolev, B. Dieny, Phys. Rev. B **96**,014412 (2017).
https://doi.org/10.1103/PhysRevB.96.014412

B. M. S. Teixeira, A. A. Timopheev, R. Schmidt, M. R. Soares, M. Seifert, V. Neu, N. A. Sobolev, J. Phys. D: Appl. Phys. **49**, 315002 (2016).
https://doi.org/10.1088/0022-3727/49/31/315002

S. Kopyl, A. A. Timopheev, V. S. Bystrov, I. Bdikin, B. M. S. Teixeira, E. Maevskij, N. A. Sobolev, A. C. M. Sousa, Journal of Magnetism and Magnetic Materials **358**, 44-49 (2014).
https://doi.org/10.1016/j.jmmm.2014.01.029

Oral communications at international conferences:

N.A. Sobolev, B.M.S. Teixeira, A.A. Timopheev, N.F.F. Caçoilo, S. Auffret, R.C. Sousa, B. Dieny, E. Alves, *"Radiation Technology of Perpendicular Magnetic Tunnel Junctions",* (22nd November 2017) - invited talk - XV International Conference on Quantum Optics and Quantum Information - Minsk, Belarus.

B.M.S. Teixeira, A.A. Timopheev, Yueliang Li, Ute Kaiser, Gleb Kakazei, Sergey Bunyaev, S. Auffret, R.C. Sousa, B. Dieny, N. A. Sobolev, *"Easy-cone Magnetic State in Double-MgO Free Layers for Perpendicular Magnetic Tunnel Junctions"*, (7th November 2017) – Oral - 62nd annual conference on Magnetism and Magnetic Materials (MMM) - Pittsburgh, United States of America.

B.M.S. Teixeira, A.A. Timopheev, M. Seifert, R. Schmidt, M.R. Soares, V. Neu, N.A. Sobolev, *"Effect of spin reorientation transition in a $NdCo_5$/Fe bilayer",* (17th February 2016) – Oral - NanoPT2016 International Conference - International Iberian Nanotechnology Laboratory (INL), Braga, Portugal.

Poster communications at international conferences:

B.M.S. Teixeira, A.A. Timopheev, N.F.F. Caçoilo, S. Auffret, R.C. Sousa, B. Dieny, E. Alves, N.A. Sobolev, *"Ion Bombardment Induced Easy-Cone Anisotropy in Double-MgO Free Layers for Perpendicular Magnetic Tunnel Junctions"*, (9th November 2017) - 62nd annual conference on Magnetism and Magnetic Materials (MMM) - Pittsburgh, United States of America.

B. M. S. Teixeira A.A. Timopheev, S. Auffret, R.C. Sousa, N.A. Sobolev, *"Double MgO/FeCoB interface free-layer for perpendicular magnetic tunnel junctions: effect of thickness and metallic spacer", (30th August 2017)* - 17th Non-Volatile Memory Technology Symposium (NVMTS) - Institute of Physics, RWTH Aachen, Germany.

B.M.S. Teixeira, A.A. Timopheev, N.F.F. Caçoilo, S. Auffret, R.C. Sousa, E. Alves, N.A. Sobolev, *"Tuning the magnetic anisotropy in perpendicular magnetic tunnel junctions by means of ion implantation"*, (14th July 2017) - 20th International Conference on Surface Modification of Materials by Ion Beams - Lisbon, Portugal.

A.A. Timopheev, B.M.S. Teixeira, R.C. Sousa, S. Auffret, T.N. Nguyen, L. Buda-Prejbeanu, M. Chshiev, N.A. Sobolev and B. Dieny*, "Non-uniform free layer in PMTJ stack: impact on magnetic anisotropy and STT-switching"*, (2nd July 2017) - Moscow International Symposium on Magnetism, MISM 2017 - Moscow State University, Moscow, Russian Federation.

A. A. Timopheev, B. M. S. Teixeira, R. C. Sousa, S. Auffret, L. D. Buda-Prejbeanu, M. Chshiev, H. Nguyen, N. A. Sobolev, B. Dieny, *"STT switching performances of perpendicular STT-MRAM comprising a storage layer with easy cone anisotropy"*, (28th April 2017) - INTERMAG Europe 2017 - Dublin, Ireland.

B.M.S. Teixeira, A.A. Timopheev, M. Seifert, R. Schmidt, M.R. Soares, V. Neu, N.A. Sobolev (5th May 2016), *"Effect of spin reorientation transition in a $NdCo_5$/Fe bilayer"*. - E-MRS Spring Meeting, Symposium E (Materials) - Congress Center (Grand Palais), Lille, France.

Aveiro, May the 25th, 2018