

Curriculum Vitae

Name: Sergey Stolbov

Job Title: Associate Professor

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(a) Professional Preparation

Undergraduate Institution	Rostov State University, Russia	Physics	BS, 1975
Graduate Institution	Rostov State University, Russia	Physics	PhD, 1982

(b) Appointments

2007 - present	Associate Professor, University of Central Florida, Orlando, FL, USA
2006 - 2007	Research Associate Professor, University of Central Florida, Orlando, FL, USA
2004 - 2006	Research Assistant Professor, Kansas State University, Manhattan, KS, USA
2000 - 2004	Research Associate, Kansas State University, Manhattan, KS, USA
1999 - 2000	Postdoctoral Fellow, Carnegie Institution of Washington, Washington, DC, USA
1998 - 1999	Research Associate, University of Houston, Houston, TX, USA
1983 - 1998	Senior Researcher, Rostov State University, Rostov-on-Don, Russia
1982 - 1983	Instructor, Rostov State University, Rostov-on-Don, Russia

(c) Publications

- (i) List up to five (5) publications/products that are the **most current** ones related to your field
1. S. Stolbov and R. Zahir, Computational search for efficient single-photon emitters among the substitutional doping defects in two-dimensional GaSe, *Physica E: Low-dim. Sys. and Nanostruct.* Under minor revision upon a positive referee reports.
 2. S. Stolbov, Local defects in two-dimensional gallium sulfide, as single-photon emitters: first-principle evaluation. *Phys. Rev. B* **106** (2022) 245205.
 3. M. Alcantara Ortigoza and S. Stolbov, Thermodynamic stability and optical properties of C-doping-induced defects in hexagonal boron nitride as potential single-photon emitters, *Phys. Rev. B* **105** (2022) 165306.
 4. T. Campbell, N. Dhakal, M. Alcantara Ortigoza, and S. Stolbov, Tuning the Properties of Metal Surfaces to Make Them CO-Tolerant and Highly Active Catalysts for Hydrogen Oxidation: A First-Principles Approach. *ChemCatChem* **13** (2021) 2618.
 5. T Campbell, S Stolbov, Water Photo-Oxidation Reaction on Clean and Doped Two-Dimensional Graphitic C₂N. *J. Energ. & Power Tech.* **2** (2), (2020) 1.
- (ii) List up to five (5) other significant publications/products.
1. T. Campbell, M. Alcántara Ortigoza, and S. Stolbov, Au/Ta(110) and Au/Nb(110) as Highly Active, Stable, and Inexpensive Catalysts for Oxygen Reduction Reaction on

Hydrogen Fuel Cell Cathodes: Prediction from First Principles. *ChemCatChem* **12** (2020) 1743.

2. S. Stolbov and M. Alcántara Ortigoza, Substrate-Driven Electrochemical Stabilization and Activation of Ag Monolayers to Catalyze the Oxygen Reduction Reaction: Beyond Pt-based Electrocatalysts. *ChemistrySelect* **3** (2018) 6536.
3. M Alcántara Ortigoza and S Stolbov, The perturbation energy: A missing key to understand the “nobleness” of bulk gold. *J. Chem. Phys.* **142** (2015) 194705.
4. S. Stolbov and S. Zuluaga, Factors Controlling the Reactivity of Catalytically Active Monolayers on Metal Substrates. *J. Phys. Chem. Lett.* **4** (2013) 1537.
5. S. Stolbov and M. Alcántara Ortigoza, Rational design of competitive electrocatalysts for hydrogen fuel cells. *J. Phys. Chem. Lett.* **3** (2012) 463.

(d) Graduate teaching experience

- List graduate courses taught within the last 7 years, include date (semester and year)
 1. Computational Physics PHZ5156 taught in Spring semesters of 2017, 2018, 2019, 2020, 2021, 2022, 2023.
 2. Computational Approach to Condensed Matter Physics PHZ6420, taught in Fall semesters of 2016, 2018, 2020.

(e) Graduate students mentored (to completion, if applicable)

- List up to 5 most recent- Chair of thesis/dissertation committees, overall number, names of students, degree, year graduated:
 1. Sebastian Zuluaga: PhD in Physics, graduated in Summer 2013.
 2. Nagendra Dhakal: PhD in Physics, graduated in Spring 2017.
 3. Tyler Campbell, PhD in Physics, graduated in Spring 2021.
- List up to 5 most recent- Member of thesis/dissertation committees, overall number, names of students, degree, year graduated:
 1. Muhammad Sajid, PhD, 2022.
 2. Nusaiba Zaman, PhD, scheduled to June 2023.
 3. Ammon Johnson, PhD, in progress.
 4. Naseem Uddin, PhD, 2020.
 5. Walter Malone, PhD, 2019
- Overall, I was a member of 14 dissertational committees.

(f) Other synergistic activities related to Graduate Education

1. I have developed a new graduate course PHZ6420, Computational approach to condensed matter physics. It combines theory and hands-on sessions applying state-of-the-art computational codes.
2. I have significantly modified a graduate course PHZ5156, Computational physics. It became an essentially interactive course combining theory and hands-on activity.
3. I am a UCF member of the APS BRIDGE program. Withing the program I mentor graduate students from underrepresented demographic groups.
4. I have significantly contributed to graduate studies at UCF and in the department as a director of the Physics PhD program, chair of the candidacy exam committee, member of the COS graduate curriculum committee, and, currently, a member of the UCF graduate appeal committee.