Jose Miguel Borreguero

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Professional Objectives

Enable users of the Spallation Neutron Source to achieve their scientific goals and more by means of hands-on-support and by developing the software tools that facilitate the reduction and analysis of neutron data.

Education

- Ph.D. in Physics, 2005. Boston University, Boston, USA.   Advisor: H. Eugene Stanley
- M.S. in Physics, 1999. Boston University, Boston, USA.
- B.S.   in Physics, 1997. University of Basque Country, Bilbao, Spain.

Academic Appointments

Software Scientist   Nov 2011– Nov 2012
Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, TN
- QENS and SANS neutron data reduction
- Analysis of classical mechanics simulations of soft-matter, comparison to neutron data.

Postdoctoral Associate   Jun 2008–Jun 2011
Neutron Scattering Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN
- Simulated neutron scattering of proteins

Postdoctoral Associate   Aug 2005–Jun 2008
Center of Systems Biology, School of Biology, Georgia Institute of Technology, Atlanta, GA
- Protein structure prediction at genomic-scale
- *De novo* design of protein sequence/structure

Research Assistant   Sep 2000–Aug 2005
Center for Polymer Studies, Boston University, Boston, MA
- Computational studies on protein folding and aggregation
- Simulated cold denaturation of proteins under high pressure

Teaching / Mentoring Experience

Research Assistant Mentor   Jan 2004–Apr 2004
Center for Polymer Studies, Boston University, Boston, MA
- Supervisor of junior graduate students

Laboratory Instructor   Sep 2002–Dec 2002
Physics Department, Boston University, Boston, MA
- Sole instructor the course "The Physics of Chance and Necessity".
- Co-designed lab sessions with lab staff and graded lab-reports.

Discussion Section Instructor   Jan 2000–Dec 2000
Physics Department, Boston University, Boston, MA
- "Statistical Mechanics" for physics graduate students.
- "Elementary Modern Physics" for engineers.
- "General physics" for physics majors.

Awards

- S. D. Bechtel young investigator award for postdoctoral research on "The early states of the Alzheimer disease", 2005.
- NECSI Travel award for International Conference on Complex Systems, 2002.
- UNESCO Student Award for International Conference on Theoretical Physics, 2002.
- National Science Foundation award for APS meeting, 2002.
- National Science Foundation award for STATPHYS 21, 2001.

Professional Activities & Societies

- Reviewer of computing proposals for the Center for Nanoscale Materials, Argonne National Laboratory.
- Reviewer for journals: Physica A (since 2002), Macromolecules (since 2003), Proteins: Structure, Function and Bioinformatics (since 2004).
- Member of the: American Chemical Society (since 2011)

Skills
- **OS**: DOS, Windows, UNIX/Linux
- **Computer Languages**: bash, C/C++, (C)make, python, perl, Tcl/Tk, HTML, LaTex.

Languages
English (proficient), Spanish (native speaker), French (basic), Basque (basic).