Durham, June 18, 2013

POSTDOCTORAL POSITIONS AT DUKE UNIVERSITY [ad-130618]

To Whom It May Concern:

The team lead by Professor Stefano Curtarolo at Duke-University-Materials Science and at the Duke Center for Materials Genomics has been awarded with the DOD-MURI on Rare Element Replacement Strategies (in Transparent Conductors): http://www.defense.gov/releases/release.aspx?releaseid=16050

Several fully-funded postdoctoral positions are available in orthogonal directions: e.g., application of artificial intelligence to materials science, thermo-kinetic modeling of materials, ab initio electronic structure methods, materials informatics, and computational materials design.

The Curtarolo’s group is at the forefront of the development of automatic electronic structure computational methods (AFLOW) for applications in materials development: energy conversion, magnetic-spintronics systems, topological insulators, and others (aflowlib.org). Research topics are described in the “Outlook” section of [Nature Mater. 12, 191 (2013), 10.1038/nmat3568], within the open-domain-sharing movement [10.1038/nmat3594]. Logistical information about our research group can be found at http://materials.duke.edu.

Background. We are looking for people with backgrounds in:
1. artificial intelligence (computer science/math)
2. statistical thermodynamics
3. topological insulation
4. electronic/magnetic/vibrational structure
5. computational materials electrochemistry
6. materials microstructures and interfaces
7. applied statistics/math and computer science

Selection. In addition to the specific background, the successful candidates must have solid and practical expertise in thermodynamics of materials, solid-state theory, and transport processes (mechanical and electronic). He/she should be highly skilled with VASP and/or Quantum Espresso, C++, and UNIX (Linux). Successful candidates must have a PhD in materials science, mathematics, physics, chemistry, statistics, or related fields. Potential candidates should send their curriculum vitae and name of three references to stefano@duke.edu (only PDF documents will be considered, no letters are required at this stage).

Sincerely yours,

Prof. Stefano Curtarolo
Professor of Materials Science and Physics
Director, Center for Materials Genomics, Duke University

Details of eligibility for benefits, such as insurance, retirement, and vacation/sick leave, may be found at the Office of Postdoctoral Services website, http://www.postdoc.duke.edu, under policies. Please note that the positions are contingent on continued availability of funding and satisfactory performance. Duke University is an affirmative action, equal opportunity employer: http://www.hr.duke.edu/policies/diversity/eeo.php