

Zhaorong Wang

Basic Information

Gender: Male **Date of Birth:** 08/23/1988
Citizenship: Chinese **Place of Birth:** Anhui, China
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Education

Degree: PhD in Electrical Engineering (expected in Apr. 2015)
University of Michigan
BS in Physics (completed in Jun. 2010)
University of Science and Technology of China (**USTC**)
GPA: (Undergraduate) 3.97/4.3 (or 3.87/4.0, 91.5/100)
Rank: (Undergraduate) 6/152 (Department of Modern Physics)

Standard Tests

TOEFL iBT: 97 (Reading 29; Listening 24; Speaking 23; Writing 21)
GRE General: Verbal 460 (52%); Quantitative 800 (94%); Analytical Writing 4.0 (41%)
GRE Subject: Physics 990 (95%)

Research Experience

09/2010—Present **Research Assistant, Plasma Science and Engineering, Radiation Laboratory, University of Michigan (Advisor: Professor Mark J. Kushner)**

I am working with *Agilent Technologies* to investigate the properties of microplasma generated by split-ring resonator. I am now trying to model the resonator and integrate it into our HPEM code. The final goal is to discover the scaling laws within microplasma as well as optimize its application as an ion source in mass spectrometer.

02/2009—06/2010 **Research Assistant, ICF Group in Key Laboratory of Basic Plasma Physics, Chinese Academy of Science (Advisor: Professor Jian Zheng)**

Main Task:

Establishing effective platform of ab-initio Molecular Dynamics in Warm Dense Plasma in my laboratory

Work has been done:

- ✧ Investigated Density Functional Theory (DFT) and Quantum Molecular Dynamics (QMD) theories
- ✧ Grasped the ab-initio MD implementation techniques such as plane wave expansion, pseudopotential, diagonalization and minimization techniques.

- ✧ Installed and tested the CPMD (a kind of ab-initio MD) codes for the laboratory
- ✧ Designed a calculation example of dense hydrogen plasmas structure which marked the success of establishing ab-initio MD simulation platform

10/2008—01/2009

Research-oriented Physics Experiment Project, USTC

Research on Computer Generated Hologram (CGH) together with Zhidong Du and Run Chen (Advisor: Associate Professor Pei Wang)

- ✧ Investigated CGH 3D display technology and realized it through Liquid Crystal Light Valve
- ✧ Made a synthetic CGH of a 3D virtual house on 2D level, then reproduced the 3D house
- ✧ Designed numeral simulation of phase hologram applied in examining aspheric mirror

This work has recently been summarized in a paper submitted to Physics Experimentation Journal (an internal journal, Chinese Ministry of Education).

12/2007—01/2008

Innovative Electromagnetics Research Project, USTC

- ✧ Designed and made a portable Metal Detector which can be easily applied in detecting metal masses and electronic devices

Honors & Awards

09/2006	Outstanding Freshmen Scholarship, USTC
01/2008	Second Prize, Innovative Electromagnetics Research Project, USTC
10/2008	Outstanding Student Scholarship (Grade 1, %5), USTC
12/2008	Second Prize, Research-oriented Physics Experiment Contest, USTC
06/2009	First Prize, "Challenge Cup" Science and Technology Thesis Contest, USTC
10/2009	Nominated by the highest scholarship-- Guo Moruo Scholarship, USTC
11/2009	Guanghua Education Scholarship, USTC

Other

Computer skills:

Familiar with C/C++, Matlab, Mathematica, Tex typesetting, OPENVMS environment

Leadership experience:

07/2007— 08/ 2008 Secretary of League Branch (equivalent to class monitor)

Extracurricular experience:

09/2006— Present	Association of Radio of USTC
03/2007— Present	Association of Science Expedition of USTC
10/2007— Present	Association of Dance of USTC