### Aqiang Guo, Ph. D 2615 Winding Creek Way Conroe, TX 77385 aqiang.guo@hccs.edu

#### **EDUCATION:**

| Doctor of Philosophy, Physics                     | 2002 | Physics Department, University of Arkansas, Fayetteville, AR  |  |  |
|---|------|---|--|--|
| Masters of Engineering, Electronic Components and |      | Electrical Engineering Department, Xi'an Jiaotong University, |  |  |
| Materials 1989                                    |      | China   |  |  |
| Bachelors of Science, Physics                     | 1983 | Physics Department, Xi'an Jiaotong University, China          |  |  |

### **TEACHING EXPERIENCE:**

| Professor of Physics         | 08/2016 - present | <b>Department of Natural Sciences,</b> Houston Community College    |
|------------------------------|-------------------|---|
| Adjunct Professor of Physics | 09/2013 - 08/2016 | <b>Department of Natural Sciences,</b> Houston Community College    |
| Adjunct Professor of Physics |                   | <b>Department of Chemistry, Physics and Engineering, Lone Star</b>  |
|                              | 01/2014 - 08/2016 | College, Montgomery & Cy Fair                                       |
| Research Associate           | 7/2006 - 8/2013   | <b>Physics Department,</b> University of Arkansas, Fayetteville, AR |
| Professor                    | 4/2005 - 6/2006   | Material Sciences Department, Hainan University, China              |
| Assistant Professor          | 7/1989 – 7/1997   | Applied Physics Department, Xidian University, China                |
| Lecturer                     | 9/1983 – 9/1986   | Xi'an Institute of Geological Survey, China                         |

### LAB EXPERIENCE:

| Research Associate  | 7/2006 - 8/2013 | <b>Physics Department,</b> University of Arkansas, Fayetteville, AR |  |
|---|-----------------|---|--|
| Maintaining and managing Nanofabrication Laboratory, From July 2011 to August 2013  |                 |   |  |
| Maintaining and managing Nonlinear Optics Laboratory, From July 2006 to August 2013 |                 |   |  |

### **RESEARCH EXPERIENCE:**

| Research Associate             | 6/2006 - 8/2013 | <b>Physics Department,</b> University of Arkansas, Fayetteville, AR |
|--------------------------------|-----------------|---|
| Research Field: Quantum Optics |                 |   |

- Explored physical behavior and functionality of the recently developed notion of parity-time (PT) symmetry optical systems.
- Designed optical experiments that involve a combination of gain, loss, and the process of index guiding.
- Compared experimental results with theory encompassing the PT optical system to determine where properties can be directly observed and further explored.
- Fabricated waveguides and waveguide arrays based on the semiconductor photolithograph process and semiconductor device technology.

| Professor   | 4/2005 - 6/2006 | Material Sciences Department, Hainan University, China |
|---|-----------------|--|
| Research Field: Photorefractive Spatial Optical Solitons and Their Applications |                 |  |

| Research Assistant & Postdoctoral Fellow | 8/1998 - 4/2005 | Physics Department, University of Arkansas, Fayetteville, AR |
|--|-----------------|--|
| Research Field: Nonlinear Optics         |                 |  |

- Designed and constructed an automated laser imaging and data acquisition system for studying micro-sized 1D and 2D steady-state photorefractive spatial optical solitons in bulk photorefractive crystals and their applications in optical modulation and switching.
- Conducted research on the formation of optical waveguides induced by photorefractive spatial solitons and their applications in optical devices such as Directional Couplers and Optical Modulators.

| Research Assistant                      | 8/1997 – 8/1998 | Physics Department, University of Puerto Rico at San Juan |
|---|-----------------|---|
| Research Field: Ferroelectric Materials |                 |   |

| Assistant Professor   | 7/1989 – 7/1997 | <b>Applied Physics Depar</b> | artment, Xidian University, China |  |
|---|-----------------|------------------------------|-----------------------------------|--|
| Research Field: Modeling and characterization of dielectric, pyroelectric, and electro-optical properties of ferroelectric materials. |                 |                              |                                   |  |

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# **PUBLICATIONS:**

Coauthored Books "Physical Properties of Crystals", ISBN7-5053-2821-2/G. 228 (Chinese)

### **Selected Publications:**

- 1. A. Guo, G. J. Salamo, D. Duchesne, R. Morandotti, M. Volatier-Ravat, V. Aimez, G. A. Siviloglou, and D. N. Christodoulides, Phys. Rev. Lett. 103, 093902 (2009).
- 2. Aqiang Guo, Henry, M., Salamo, G.J., Segev, M., Wood, G.L. Optics Letters 26 1274(2001).
- 3. Aqiang Guo, Henry, M., Salamo, G.J., Segev, M., Wood, G.L. Applied Physics Letters 79, 1423(2001).
- 4. Cheng, Z.-Y., Katiyar, R.S., Yao, X., Aqiang Guo, Physical Review B (Condensed Matter) 55, 8165 (1997).