

# WEI-CHIA CHEN, Ph.D.

Cold Spring Harbor Laboratory | 1 Bungtown Road, Cold Spring Harbor, NY 11724 | chenw@cshl.edu

---

## EDUCATION

Ph.D. Physics, Florida State University, Tallahassee, Florida	08/2009 – 12/2015
M.S. Physics, National Tsing Hua University, Hsinchu, Taiwan	09/2005 – 07/2007
B.S. Physics, National Cheng Kung University, Tainan, Taiwan	09/2001 – 06/2005

## POSITIONS

<b>Interdisciplinary Scholar in Experimental and Quantitative Biology</b> Cold Spring Harbor Laboratory, Cold Spring Harbor, New York	09/2018 – Present
<b>Postdoctoral Fellow</b> Cold Spring Harbor Laboratory, Cold Spring Harbor, New York	05/2017 – Present
<b>Visiting Scholar</b> Florida State University, Tallahassee, Florida	04/2016 – 01/2017

## RESEARCH INTEREST

I was trained in theoretical/computational nuclear physics. The goal of my doctoral research was to build new relativistic mean field models for nuclear systems ranging from atomic nuclei, nuclear matter, to neutron stars. My current research interest focuses on Bayesian field theory regarding density estimation and survival analysis in particular. The goal is to develop new statistical inference methods that are suitable for small data sets.

## HONORS & AWARDS

- Dirac-Hellman Award in Theoretical Physics 2016**  
Department of Physics, Florida State University, Tallahassee, Florida
- The Dirac Fellowship 2014**  
Department of Physics, Florida State University, Tallahassee, Florida
- Honorary Member of the Phi Tau Phi Scholastic Honor Society of the Republic of China, since 2005**

## PROFESSIONAL ACTIVITIES

Referee, <i>Physical Review Journals</i> of American Physical Society	Since 2015
Member, American Physical Society	Since 2011

## PUBLICATIONS

### Statistics

1. **Chen WC**, Tareen A and Kinney JB (2018) Density estimation on small data sets. *Physical Review Letters*, 121, 160605.

### Nuclear Physics

1. Utama R, **Chen WC** and Piekarewicz J (2016) Nuclear charge radii: density functional theory meets Bayesian neural networks. *Journal of Physics G*, 43, 114002.
2. **Chen WC** and Piekarewicz J (2015) Compactness of neutron stars. *Physical Review Letters*, 115, 161101.
3. **Chen WC** and Piekarewicz J (2015) Searching for isovector signatures in the neutron-rich oxygen and calcium isotopes. *Physics Letters B*, 748, 284.
4. Piekarewicz J, **Chen WC** and Fattoyev FJ (2015) Information and statistics: a new paradigm in theoretical nuclear physics. *Journal of Physics G*, 42, 034018.
5. **Chen WC** and Piekarewicz J (2014) Building relativistic mean field models for finite nuclei and neutron stars. *Physical Review C*, 90, 044305. (Editors' Suggestion)
6. **Chen WC**, Piekarewicz J and Volya A (2014) Relativistic mean field plus exact pairing approach to open shell nuclei. *Physical Review C*, 89, 014321.
7. **Chen WC**, Piekarewicz J and Centelles M (2013) Giant monopole energies from a constrained relativistic mean-field approach. *Physical Review C*, 88, 024319.