

# Curriculum Vitae for Baile Li

Home Address:  
3416 Murphy Rd C6  
Nashville, TN 37203  
Phone: (615)-305-0531  
E-mail: [baile.li@vanderbilt.edu](mailto:baile.li@vanderbilt.edu)  
Home page:  
<http://vpac00.phy.vanderbilt.edu/~lib10/Site/index.html>

Departmental Address:  
Vanderbilt University  
Department of Physics and Astronomy  
2401 Vanderbilt Place  
Nashville, TN 37240-1807  
Phone: (615)-343-4623  
Fax: (615)-343-7263

## Education:

- B.S. in Physics from Jilin University, China - 2006
- M.S. in Theoretical Physics from Jilin University, China - 2009
- Ph.D. in Astronomy at Vanderbilt University - expected August, 2015  
Thesis: Supermassive black hole binary coalescence and orbital structure of the host galaxy.  
Dissertation Chair: Kelly Holley-Bockelmann

## Areas of Interest:

supermassive black holes, stellar dynamics, galactic structure, theoretical and observational extragalactic astronomy

## Publications:

- *Expansion Techniques for Collisionless Stellar Dynamical Simulations.*  
Authors: Yohai Meiron, **Baile Li**, Kelly Holley-Bockelmann, and Rainer Spurzem  
2014 Astrophysical Journal, 792, 98

## Projects in Preparation:

- *Classification of Stellar Orbits in Axisymmetric galaxies.*  
Authors: **Baile Li**, Kelly Holley-Bockelmann, and Fazeel Khan  
Submitted to Astrophysical Journal
- *Supermassive Black Hole Binary Mergers within Axisymmetric Galaxies.*  
Authors: **Baile Li**, Kelly Holley-Bockelmann, and Fazeel Khan
- *Supermassive Black Hole Spin Evolution in Spherical galaxies*  
Authors: **Baile Li** and Kelly Holley-Bockelmann

## Skills:

- Proficiency with Fortran parallel programming using MPI.

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Added up to 3.5 post-Newtonian terms to the self-consistent field (SCF) code to make particles run under the regime of general relativity, not only Newton physics. Run the edited SCF code which can classify stellar orbits in axisymmetric galaxies on 200 nodes.

- Proficiency with MATLAB programming.  
Used MATLAB for data analysis and figure plotting.
- Skilled in Linux, Fortran, Perl, C programming.

## Teaching Experience:

- Graduate Student Teaching Assistant for intro. astro. course for non-majors at Vanderbilt University. Responsibilities included grading of homework and exams and holding help desk.
- Graduate Student Instructor for general physics lab for non-majors and majors at Vanderbilt University. Given complete control of the lab including giving short lectures, monitoring exams, answering questions and grading lab reports.

## Invited Talks:

- 2013/07 visited National Astronomical Observatories of China  
Talk Topic: Classification of Stellar Orbits in Axisymmetric galaxies
- 2011/12 China-Korea workshop  
Talk Topic: Supermassive black hole spin evolution during galaxy growth
- several Astronomy Journal Club talks at Vanderbilt University

## References:

Dr. Kelly Holley-Bockelmann  
Department of Physics and Astronomy  
Vanderbilt University  
Nashville, TN 37240-1807  
(615)-343-2153 k.holley@vanderbilt.edu

Dr. Andreas Berlind  
Department of Physics and Astronomy  
Vanderbilt University  
Nashville, TN 37240-1807  
(615)-343-2184 a.berlind@vanderbilt.edu

Dr. Rainer Spurzem  
National Astronomical Observatories of China  
Chinese Academy of Sciences  
Beijing, China 100012  
+86 (10)-6480-7215 spurzem@nao.cas.cn