

# ChangHoon Hahn

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## Education

- Ph.D.* 2017 Department of Physics, New York University  
(Expected) *Advisors*: Michael R. Blanton and Roman Scoccimarro  
*Thesis*: Galaxies and their Host Dark Matter Structures
- B.Sc.* 2011 Department of Physics and Astronomy, Rutgers University  
*Advisor*: Andrew J. Baker  
*Thesis*: Obscuration in Host Galaxies of Active Galactic Nuclei

## Awards and Honors

- 2016 - 2017 NYU GSAS Dean's Dissertation Fellowship  
2015 - 2016 James Arthur Graduate Fellowship  
2015, 2016 NYU GSAS Dean's Student Travel Grant (\$1000 total)  
2011 *Honors in Astronomy* - SAS Paul Robeson Scholar

## Publications (5 first-authored; 10 total)

1. **CH Hahn**, R. Scoccimarro, M. R. Blanton, J. L. Tinker, S. Rodríguez-Torres  
*The Effect of Fiber Collisions on the Galaxy Power Spectrum Multipole*  
MNRAS, 2017 accepted ([arXiv:1609.01714](https://arxiv.org/abs/1609.01714)).
2. M. Vakili, F.-S. Kitaura, Y. Feng, G. Yepes, C. Zhao, C. Chuang, **CH Hahn**  
*Accurate halo-galaxy mocks from automatic bias estimation and particle mesh gravity solvers*  
MNRAS, 2017 submitted.
3. **CH Hahn**, J. L. Tinker, A. R. Wetzel  
*Star Formation Quenching Timescale of Central Galaxies in a Hierarchical Universe*  
ApJ, 2016 submitted ([arXiv:1609.04398](https://arxiv.org/abs/1609.04398)).
4. M. Vakili, **CH Hahn**  
*How are galaxies assigned to halos? Searching for assembly bias in the SDSS galaxy clustering*  
ApJ, 2016 submitted ([arXiv:1610.01991](https://arxiv.org/abs/1610.01991)).
5. S. Rodríguez-Torres, J. Comparat, F. Prada, G. Yepes, E. Burtin, P. Zarrouk, P. Laurent, **CH Hahn**, et al.  
*Clustering of Quasars in the First Year of the SDSS-IV eBOSS survey: Interpretation and halo occupation distribution*  
MNRAS, 2016 submitted ([arXiv:1612.06918](https://arxiv.org/abs/1612.06918)).
6. Z. Zhai, J. L. Tinker, **CH Hahn**, et al.  
*The clustering of luminous red galaxies at  $z \sim 0.7$  from eBOSS data*  
ApJ, 2016 submitted ([arXiv:1607.05383](https://arxiv.org/abs/1607.05383)).
7. **CH Hahn**, M. Vakili, K. Walsh, A. P. Hearin, D. W. Hogg, D. Campbell  
*Approximate Bayesian Computation in Large Scale Structure: Constraining the Galaxy-Halo Connection*  
MNRAS, 2016 submitted ([arXiv:1607.01782](https://arxiv.org/abs/1607.01782)).
8. S. Rodríguez-Torres, C. Chuang, F. Prada, H. Guo, A. Klypin, **CH Hahn**, et al.  
*The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: Modeling the clustering and halo occupation distribution of CMASS galaxies in the Data Release 12*  
MNRAS, 460, 1173, 2016 ([arXiv:1509.06404](https://arxiv.org/abs/1509.06404)).

9. **CH Hahn**, M. R. Blanton, J. Moustakas, A. L. Coil, R. J. Cool, D. J. Eisenstein, R. A. Skibba, K. C. Wong, G. Zhu  
*PRIMUS: Effects of Galaxy Environment on the Quiescent Fraction at  $z < 0.8$*   
ApJ, 806, 162, 2015 ([arXiv:1412.7162](#)).
10. **CH Hahn**, J. A. Sellwood, C. Pryor  
*Velocity-space substructure from nearby RAVE and SDSS stars*  
MNRAS, 418, 2459, 2011 ([arXiv:1102.4626](#)).

## Presentations

- 01/2017 – Dissertation Talk @ AAS 229, Grapevine TX  
*Evolving Galaxies in a Hierarchical Universe*
- 12/2016 – Invited Talk @ Lawrence Berkeley National Laboratory  
*Fundamental Physics with Galaxy Clustering (RPM talk)*
- 10/2016 – Informal Talk @ Yale University  
*Evolving Galaxies in a Hierarchical Universe*
- 08/2016 – BOSS Lunch Talk @ Lawrence Berkeley National Laboratory  
*Quenching Timescale of Central Galaxies*
- 08/2016 – Poster @ Mapping the Pathways of Galaxy Transformation Across Time and Space  
*Quenching Timescale of Central Galaxies* (Winner: Best Poster)
- 06/2016 – Seminar Talk @ Universidad Nacional de Columbia  
*How do Galaxies Stop Star-Formation*
- 06/2016 – Poster @ Statistical Challenges in Modern Astronomy VI  
*Approximate Bayesian Computation in Large Scale Structure*
- 04/2016 – Blackboard Talk @ Center for Cosmology and Particle Physics NYU  
*Weighing Neutrinos with Galaxies*
- 07/2015 – Contributing Talk @ SDSS-IV Collaboration Meeting  
*Fiber Collision Correction for Galaxy Power Spectrum*
- 02/2015 – Contributing Talk @ Multi-Object Spectroscopy in the Next Decade  
*PRIMUS: Effects of Galaxy Environment on the Quiescent Fraction*
- 12/2014 – Contributing Talk @ BOSS/eBOSS Collaboration Meeting  
*The Effect of Fiber Collisions on the Power Spectrum and Bispectrum*
- 09/2014 – Contributing Talk @ Evolving Galaxies in Evolving Environments  
*PRIMUS: Effects of Galaxy Environment on the Quiescent Fraction at  $z < 0.8$*
- 08/2014 – Brown Bag Talk @ Center for Cosmology and Particle Physics NYU  
*Galaxy Environment on the Quiescent Fraction*

## Outreach and Activities

- 2017 AAS Chambliss Judge
- 2016 Explained Gamma Ray Bursts in Season 2 of the *Tell Me Something I Don't Know* podcast
- 2014 - present Chair of *NYU CCPP Astro-Coffee*
- 2011 - present Chancellor of the *Intellectually Stimulating Craic*
- 2015 - 2017 Represented the Sloan Digital Sky Survey at the *NY Hall of Science Big Data Fest* and *AAS 229*

## References

<b>Prof. Michael R. Blanton</b> , New York University	<a href="mailto:blanton@nyu.edu">blanton@nyu.edu</a>
<b>Prof. Roman Scoccimarro</b> , New York University	<a href="mailto:rs123@nyu.edu">rs123@nyu.edu</a>
<b>Prof. Jeremy L. Tinker</b> , New York University	<a href="mailto:jlt12@nyu.edu">jlt12@nyu.edu</a>
<b>Prof. Andrew R. Wetzel</b> , University of California Davis	<a href="mailto:awetzel@caltech.edu">awetzel@caltech.edu</a>
<b>Prof. David W. Hogg</b> , New York University	<a href="mailto:david.hogg@nyu.edu">david.hogg@nyu.edu</a>