

# SHANY DANIELI

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## EDUCATION

- 2015 – Present      *Yale University*  
PhD candidate in Physics, expected 2020  
Advisor: Prof. Pieter van Dokkum
- 2014 – 2015      *Yale University*, M.Phil Physics
- 2013 – 2014      *Yale University*, M.Sc Physics
- 2009 – 2012      *Tel Aviv University*  
B.Sc, Physics & Astronomy (Magna Cum Laude)
- 2004 – 2005      *The Hebrew University of Jerusalem*  
Cadet in IDF Talpiot Program

## RESEARCH INTERESTS

Galaxy formation and evolution; large scale structure; dark matter; dwarf galaxies; ultra-diffuse galaxies; low surface brightness imaging

## SELECTED TALKS

- IAU Symposium 355 - ‘The Realm of the Low Surface Brightness Universe (**Invited talk**)  
‘*TBD*’      **2019**
- Harvard University, ITC Luncheon (**Invited talk**)  
‘*Galaxies Missing Dark Matter*’      **2019**
- UConn, Astronomy Seminar (**Invited talk**)  
‘*Hunting Low Surface Brightness Galaxies with the Dragonfly Telephoto Array*’      **2018**
- The Lorentz Center, Leiden - ‘The Bewildering Nature of Ultra-diffuse Galaxies’  
‘*The Size-Luminosity Relation in the Coma Cluster*’      **2018**
- The Lorentz Center, Leiden - ‘The Bewildering Nature of Ultra-diffuse Galaxies’  
‘*Ultra Diffuse Galaxies in the Dragonfly Wide-Field Survey*’      **2018**
- University of Chicago - ‘Near-Field Cosmology with the Dark Energy Survey’s DR1 ’  
‘*Hunting Low Surface Brightness Galaxies in the Local Volume with the Dragonfly Telephoto Array*’      **2018**
- The Hebrew University of Jerusalem, Cosmo Lunch (**Invited talk**)  
‘*Hunting Low Surface Brightness Galaxies with the Dragonfly Telephoto Array*’      **2017**

Harvard-Smithsonian Center for Astrophysics, Lunch Talk ' <i>The Luminosity Function of the M101 Group</i>	<b>2016</b>
Tel Aviv University, Lunch Talk ' <i>Exploring the low surface brightness universe with the Dragonfly Telescope</i> '	<b>2016</b>
DESY, Zeuthen, 20 <sup>th</sup> FCAL Collaboration Workshop ' <i>Luminosity Spectrum from Acollinearity Using Bhabha Events at CLIC</i> '	<b>2016</b>
CERN, Geneva, LCD meeting ' <i>Studies on the Measurement of Differential Luminosity Using Bhabha Events at the Future <math>e^+e^-</math> Collider – CLIC</i> '	<b>2011</b>

## PUBLICATIONS

### LEAD AUTHOR

1. **Danieli, S.**, van Dokkum, P., Conroy, C., Abraham, R. and Romanowsky, A.J.  
*Still Missing Dark Matter: KCWI High-Resolution Stellar Kinematics of NGC1052-DF2*  
2019, ApJL, submitted (arXiv: 1901.03711)
2. **Danieli, S.** and van Dokkum, P.  
*Revisiting the Size-Luminosity Relation in the Era of Ultra Diffuse Galaxies*  
2018, ApJ, submitted (arXiv: 811.01962)
3. **Danieli, S.**, van Dokkum, P. and Conroy, C.  
*Hunting Faint Dwarf Galaxies in the Field Using Integrated Light Surveys*  
2018, ApJ, 856, 69
4. **Danieli, S.**, van Dokkum, P., Merritt, A., Abraham, R., Zhang, J., Karachentsev, I. D., and Makarova, L. N.  
*The Dragonfly Nearby Galaxies Survey. III. The Luminosity Function of the M101 Group*  
2017, ApJ, 837, 136

### CO-AUTHOR

5. van Dokkum, P., **Danieli, S.**, Cohen, Y., Merritt, A., Romanowsky, A.J., Abraham, R., Brodie, J., Conroy, C., Lokhorst, D., Mowla, L., O'Sullivan, E., Zhang, J.  
*A galaxy lacking dark matter*  
2018, Nature, 555, 629
6. van Dokkum, P., **Danieli, S.**, Cohen, Y., Romanowsky, A.J., Conroy, C.  
*The Distance of the Dark Matter Deficient Galaxy NGC 1052–DF2*  
2018, ApJ, 864, 18

7. Wasserman, A, Romanowsky, A.J., Brodie, J., van Dokkum, P., Conroy, C., Abraham, R., Cohen, Y., **Danieli, S.**  
*A Deficit of Dark Matter from Jeans Modeling of the Ultra-diffuse Galaxy NGC 1052-DF2*  
 2018, ApJ, 863, 15
8. Cohen, Y., van Dokkum, P., **Danieli, S.**, Romanowsky, A.J., Abraham, R., Merritt, A., Zhang, J., Mowla, L., Kruijssen, J. M. D., Conroy, C., Wasserman, A.  
*The Dragonfly Nearby Galaxies Survey. V. HST/ACS Observations of 23 Low Surface Brightness Objects in the Fields of NGC1052, NGC1084, M96, and NGC4258*  
 2018, Accepted to publication in ApJ, arXiv:1807.06016
9. van Dokkum, P., Cohen, Y., **Danieli, S.**, Kruijssen, J. M. D., Romanowsky, A. J., Merritt, A., Abraham, R., Brodie, J., Conroy, C., Lokhorst, D., Mowla, L., O'Sullivan, E., Zhang, J.  
*An Enigmatic Population of Luminous Globular Clusters in a Galaxy Lacking Dark Matter*  
 2018 ApJ, 856, 30
10. van Dokkum, P., Cohen, Y., **Danieli, S.**, Romanowsky, A., Abraham, R., Brodie, J., Conroy, C., Kruijssen, J. M. D., Lokhorst, D., Merritt, A., Mowla, L., Zhang, J.  
*A Revised Velocity for the Globular Cluster GC-98 in the Ultra Diffuse Galaxy NGC 1052-DF2*  
 2018, RNAAS, 2b, 54
11. Merritt, A., van Dokkum, P., **Danieli, S.**, Abraham, R., Zhang, J., Karachentsev, I. D., and Makarova, L. N.  
*The Dragonfly Nearby Galaxies Survey. II. Ultra-Diffuse Galaxies near the Elliptical Galaxy NGC 5485*  
 2016, ApJ, 833, 168
12. van Dokkum, P., Abraham, R., Brodie, J., Conroy, C., **Danieli, S.**, Merritt, A., Mowla, L., Romanowsky, A., Zhang, J.  
*A High Stellar Velocity Dispersion and ~100 Globular Clusters for the Ultra-diffuse Galaxy Dragonfly 44*  
 2016, ApJL, 828, L6
13. Abraham, R., van Dokkum, P., Conroy, C., Merritt, A., Zhang, J., Lokhorst, D., **Danieli, S.**, Mowla, L.  
*Future Prospects: Deep Imaging of Galaxy Outskirts using Telescopes Large and Small*  
 2016, arXiv: 1612.06415

## OBSERVATIONAL EXPERIENCE

The Dragonfly Telephoto Array, Keck Telescope (KCWI, DEIMOS and LRIS), Hubble Space Telescope.

## HONORS & AWARDS

- 2013 *Leigh Paige Award*, Yale Physics Department
- 2012 *Merit-based Memorial Scholarship*, Tel Aviv University

- 2010-2012 *Honors Program for undergraduate students, Tel Aviv University*
- 2010-2011 *Dean's list, B.Sc in Physics (top 5%), Tel Aviv University*
- 2009 *Head of Intelligence Directorate Prize for Creativity, Winning project for significant breakthroughs of intelligence.*
- 2009 *Merit Certificate from Head of Intelligence Directorate, for exceptional contribution to the security of the state of Israel.*
- 2007 *Honored Cadet, officers training course (BAHAD 1).*

## TEACHING & OUTREACH

- Summer 2016 *Banneker & Aztlán Summer Program*  
Mentor
- 2013-2015 *Yale University: Teaching Assistant*  
PHYS 200: Fundamentals of Physics  
PHYS 180: University Physics  
PHYS 171: University Physics for the Life Sciences II  
PHYS 170: University Physics for the Life Sciences I
- 2013-2014 *Women In Science At Yale (WISAY)*  
Mentor
- 2010-2011 *Tel Aviv University: Teaching Assistant*  
Physics 3 for Engineers  
Mathematical Methods for Physicists 2  
Electronics
- 2011 *CERN, PH-LCD group*  
Advisors: Dr. Lucie Linssen & Dr. Konrad Elsener  
CLIC Physics and Detectors study

## WORK EXPERIENCE

- 2011 – 2013 *Prime Minister's Office, Israel*  
Physicist and analyst
- 2004-2009 *Israeli Defense Force, in an elite unit of the intelligence corps*  
Discharge Rank: First Lieutenant. Performed several roles including:  
  
Head of training section, Analysis & Research Department, Military Intelligence Directorate. Commanded 25 soldiers, including teaching high level technological and Intelligence subjects.  
  
Analysis Officer, exclusive team in the Analysis & Research Department.