

Biographical Sketch
ISTVÁN SZAPUDI

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i. PROFESSIONAL PREPARATION

Eötvös University, Budapest, Hungary, Theoretical Physics	M.A.	1990
Johns Hopkins University, Baltimore, Maryland, Astrophysics	M.A.	1991
Johns Hopkins University, Baltimore, Maryland, Astrophysics	Ph.D.	1995

ii. APPOINTMENTS

2009– Astronomer, Institute for Astronomy, University of Hawaii
2008– Visiting Professor, Eötvös University, Budapest
2008– Polányi Fellow, Institute for Advanced Studies, Collegium Budapest
2005– Associate Astronomer, Institute for Astronomy, University of Hawaii
2001– Assistant Astronomer, Institute for Astronomy, University of Hawaii
1999– Senior Research Associate, Canadian Institute for Theoretical Astrophysics
1997– Postdoctoral Research Assistant, University of Durham
1994– Research Associate, Fermi National Laboratory
1994– Visiting Scholar, University of Chicago

iii. (a). FIVE PUBLICATIONS RELATED TO PROPOSED TOPIC

Rácz, G., **Szapudi**, I., Csabai, I., & Dobos, L. (2018), Compactified cosmological simulations of the infinite universe, *MNRAS*, 477, 1949 [PDF](#)
Szapudi, I. (2009), Introduction to Higher Order Spatial Statistics in Cosmology, *Data Analysis in Cosmology*, 665, 457 [PDF](#)
Szapudi, I. (2007), Spatial Statistics of Cosmic Microwave Background Maps, *Statistical Challenges in Modern Astronomy IV*, 371, 3 [PDF](#)
Szapudi, I. (2004), Three-Point Statistics from a New Perspective, *ApJ*, 605, L89 [PDF](#)
Szapudi, I., Prunet, S., & Colombi, S. (2001), Fast Analysis of Inhomogeneous Megapixel Cosmic Microwave Background Maps, *ApJ*, 561, L11 [PDF](#)

iii. (b). FIVE ADDITIONAL PUBLICATIONS

Szapudi, I., et al. (2015), Detection of a supervoid aligned with the cold spot of the cosmic microwave background, *MNRAS*, 450, 288 [PDF](#)
Kovács, A., & **Szapudi**, I. (2015), Star-galaxy separation strategies for WISE-2MASS all-sky infrared galaxy catalogues, *MNRAS*, 448, 1305 [PDF](#)
Carron, J., & **Szapudi**, I. (2013), Sufficient observables for large-scale structure in galaxy surveys, *MNRAS*, L213 [PDF](#)

Kovács, A., Carron, J., & Szapudi, I. (2013), On the coherence of WMAP and Planck temperature maps, *MNRAS*, 436, 1422 [PDF](#)

Kovács, A., Szapudi, I., Granett, B. R., & Frei, Z. (2013), Cross-correlation of WMAP7 and the WISE full data release, *MNRAS*, 431, L28 [PDF](#)

iv. SELECT SYNERGISTIC ACTIVITIES

1. Executive Committee Member of the Eötvös International Research School of Astrophysics [EIRSA](#); Member or Chair of several NASA, NSF, and ESO review panels 2011-2014.
2. Development of [\(pol\)SpICE](#) for analysis of large Cosmic Microwave Background data sets, an official level 2 pipe-line software for Planck; [eSpICE](#), a package for fast analysis for large galaxy data sets; [CosmoPy](#), a general collection of algorithms for cosmology theory; [FORCE](#), a theoretical calculator of errors on higher order statistics.
3. Regular contributor to the Insitute for Astronomy Open House.
4. Sponsoring and mentoring REU, undergraduate, and international student visitors (Undergraduate Brian Ng, Christine Lee, REU student Stephanie Sallum, international undergraduate students Pablo Arnalte-Mur and Nora Fenyvesi, and international graduate student Guilhem Lavaux.)
5. Creating a [Computer Science Curriculum](#) specially geared towards astronomers and physicists.

v. (c) THESIS ADVISOR AND POSTGRADUATE SCHOLAR SPONSOR

Chair or Co-Chair of Thesis Committee: Andrew Repp(2020), Gábor Rácz(2020), András Kovács (PhD 2014), Péter Pápai (PhD 2011), Ben Granett (PhD 2010).

Member of Thesis Committee: Christopher Reyes, Omar Ramadan, Jacob Christy, Mark Duvall, Priya Gopal, Alexandre Barthelemy, David Donovan, Bradley Jacobs, Chris Beaumont, Metthew Chasse, Julien Bel, Kevin Croker, Metin Ata, Shawn Dubey

Pre-PhD grad supervision: Grey Murphree, Christopher Storfer, Tze Goh.

Postdoctoral scholars supervised: Jun Pan (2002–2004), Gayoung Chon (2003–2004), Pablo Fos-alba (2003–2004), Gang Chen (2004–2007), Mark Neyrinck (2005–2008), Adrian Pope (2005–2008), Tomotsugu Goto (2011–2012), Julien Carron (2012–2015), Melody Wolk (2013–2015), Robert Beck (2017-2019) Conor McPartland(2021-22)

Total number of graduate students supervised: 8.

Total number of postdoctoral scholars sponsored: 11.