Neven Caplar

Swiss Federal Institute of Technology
Department of Phyiscs
8093-Zurich
Wolfgang-Pauli Strasse 27
HIT J-33.3

Phone: +41 44 63 33826
Phone2: +1 609 787 8425
Web: http://people.phys.ethz.ch/∼caplarn
Email: caplarn@phys.ethz.ch
Email2: ncaplar@princeton.edu

Education

2013 - 2017, Ph.D., ETH Zurich

Advisor: Dr. Simon J. Lilly, ETH Zurich

Thesis: Evolution of the AGN population in the Universe

2005 - 2010, MSc, University of Zagreb

Advisor: Dr. Hrvoje Stefancic, Institut Ruder Boskovic

Thesis: Unification models of dark energy and dark matter

Research

Main topics of my work include black hole-galaxy co-evolution, AGN physics and time domain astronomy.

Peer-Reviewed Journal Articles in Astronomy

1. 2017, A. Weigel, K. Schawinski, **N. Caplar**, A. Carpineti, R. Hart, S. Kaviraj, W. Keel, S. Kruk, C. Lintott, R. Nichol, B. Simmons, R. Smethurst
   Galaxy Zoo: Major galaxy mergers are not a significant quenching pathway, accepted to ApJ

2. 2017, A. Weigel, K. Schawinski, **N. Caplar**, O. I. Wong, T. Ezequiel, B. Trakhtenbrot
   Two mass independent Eddington ratio distribution functions regulate black hole growth of blue and red galaxies in the local Universe, accepted to ApJ

3. 2017, **N. Caplar**, S. J. Lilly, B. Trakhtenbrot
   Optical variability of AGN in the PTF/iPTF survey, ApJ, 2017, 834, 111C

4. 2015, **N. Caplar**, S. J. Lilly, B. Trakhtenbrot
   AGN evolution from a galaxy evolution viewpoint, ApJ, 2015, 811, 148C

5. 2013, **N. Caplar**, H. Stefancic
   Generalized models of unification of dark matter and dark energy, Phys. Rev. D, 2013, 87, 023510

Other Publications

These publications are not directly connected to Astronomy. However, they are both "big-data" papers for which I collected and reduced the data.

6. 2016, **N. Caplar**, S. Tacchella, S. Birrer
   Quantitative evaluation of gender bias in astronomy, 2017, NatAs, 1E, 182C

7. 2013, **N. Caplar**, M. Suznjevic, M. Matijasevic
   Analysis of players' in-game performance vs rating: Case study of Heroes of Newerth, Foundation of Digital games 2013, pp. 237-244

Telescope Proposals

2013, F. Miniati, S. J. Lilly, **N. Caplar**
The connection between magnetised galactic outflows and high Faraday effect in the circumgalactic environment of intermediate redshift galaxies
Awarded 24 hours with VIMOS instrument on VLT

2013, S. J. Lilly, F. Miniati, **N. Caplar**, B. Gaensler, J. Farnes
Testing the association of magnetized plasma with high redshift galaxies along the line of sight
Awarded 5 nights at NTT telescope

Seminar and Conference Presentations

2017: Weizmann Institute of Science/ University of Geneve/ Unveiling the Physics Behind Extreme AGN Variability, St. Thomas, USA (conference, talk)/ Models of Gravity workshop, Hannover, Germany (workshop, talk)

2016: Caltech/ University of Washington/ Stanford/ University of Maryland/ Shining from the heart of darkness: black hole accretion and jets, Katmandu, Nepal (conference, talk)/ AGN: what's in a name, Munich, Germany (conference, talk)

2015: Black Hole Accretion and AGN Feedback, Shanghai, PRC (conference, talk)/ Inaugural Zwicky Symposium, Braunwald, Switzerland (conference, talk-organizer)/ Demographics and environment of AGN from multi-wavelength surveys Chania, Greece (conference, talk)/ Unveiling the AGN-Galaxy Evolution, Puerto Varas, Chile (conference, talk)

2014: COSMOS team meeting, Zagreb, Croatia (workshop, talk)/ Multiwavelength-surveys, Dubrovnik, Croatia (conference, poster)/ Powerful AGN, Port Douglas, Australia (conference, talk)/ The Formation and Growth of Galaxies in the Young Universe, Obergurgl, Austria (conference, talk)

2012: Karl-Franzens University/ Jagellonian University/ European Summer Campus, Strasbourg, France (conference-school, poster)

Special skills and computing

Programming Languages: Mathematica, Python, LaTeX, CIAO

Experience in working with X-ray, optical and time-domain data

Experience in data reduction, survey calibration, "big data" and machine learning techniques

Since April 2015 I run astrodataiscool.com website, where I publish analysis of the data from astronomical and popular sources. The website gathered ∼20000 unique views.