

CONTACT Dr. Igor Andreoni
DETAILS

Joint Space-Science Institute
Department of Astronomy, University of Maryland; College Park, 20742, MD, USA
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EMPLOYMENT
HISTORY

- 2021–ongoing: Neil Gehrels Prize Postdoctoral Fellow at Joint Space-Science Institute (University of Maryland & NASA Goddard Space Flight Center)
- 2018–2021: Postdoctoral Fellow at California Institute of Technology (Caltech), Pasadena, CA, USA
Supervisor: Prof. Mansi M. Kasliwal

RESEARCH
INTERESTS

- Gravitational waves and multi-messenger astronomy
- Optical and high-energy transients
- Fast Radio Bursts
- High time resolution optical astronomy

PROFESSIONAL
MEMBERSHIPS

- 2018–ongoing: Zwicky Transient Facility (ZTF) Collaboration
- 2018–ongoing: LSST Transients and Variable Stars Science Collaboration
- 2018–ongoing: Global Relay of Observatories Watching Transients Happen (GROWTH) Collaboration
- 2018–ongoing: American Astronomical Society (AAS)
- 2017–2018: ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav)
- 2016–2018: Student sponsored by the Australian Astronomical Observatory (AAO)
- 2015–2017: ARC Centre of Excellence for All-sky Astrophysics (CAASTRO)

EDUCATION

- 2015–2018: PhD in Astronomy at Swinburne University of Technology, Melbourne, VIC, Australia.
Thesis title: “*Deep multi-wavelength exploration of the fast transient Universe*”.
Supervisors: Prof Jeff Cooke, Prof Matthew Bailes (Swinburne), Dr Stuart Ryder (AAO).
- 2014: Master’s degree in Physics at Università degli Studi di Milano, Milan, Italy.
Thesis title: “*Monitoring of nearby galaxies with the Swift satellite to search for variable sources.*”
Supervisors: Dr Sergio Campana, Dr Paolo D’Avanzo (INAF-OAB), Prof Pierre Pizzochero (UniMi).
- 2012: Bachelor’s degree in Physics at Università degli Studi di Milano-Bicocca, Milan, Italy.
Thesis title: “*Cosmic rays: diffusion in the interstellar medium*”
Supervisor: Prof Giorgio Sironi (UniMi-Bicocca)

EXTENDED
RESEARCH
VISITS

- August–October, 2015: Visiting student at Caltech, Pasadena, CA, USA
- October 2013–February 2015: Master’s thesis and research at the Astronomical Observatory of Brera, Merate, LC, Italy
Mentors: Dr Sergio Campana, Dr Paolo D’Avanzo
- August–October 2013: INFN/NFS Exchange Project - The George Washington University, Washington, DC, USA
Mentor: Prof Alessandra Corsi

LEADERSHIP
AND SERVICES

- Referee for The Astrophysical Journal (ApJ), The Astrophysical Journal Letters (ApJL), Monthly Notices of the Royal Astronomical Society (MNRAS), The Astronomical Journal (AJ), Astronomy & Astrophysics (A&A), Publications of the Astronomical Society of Australia (PASA), Publications of the Astronomical Society of Japan (PASJ); consultant for Nature Astronomy
- 2022–ongoing: Vera C. Rubin Observatory Users Committee
- Time Allocation Committee or proposal reviewer for facilities including Caltech Optical Observatories (Keck and Palomar observatories), Subaru, Hubble Space Telescope, Gemini Observatory.
- Grant proposal reviewer for the American University of Sharjah (AUS), United Arab Emirates
- 2021–ongoing: Co-organizer of the Caltech-ZTF/SVOM synergy workshop series
- 2020–2021: Co-organizer of the weekly Cahill Time Domain Science Discussion, Caltech, Pasadena, CA, USA
- 2019–2021: Communication Coordinator, Zwicky Transient Facility Collaboration
- 2019–2020: “Leader Development Coaching Program” with Barbara Blatz-Stone MA, Caltech & Claremont Graduate University, CA, USA
- 2018–2020: Postdoc Representative, GROWTH Collaboration Management Team
- Head technical organizer, teaching assistant coordinator, member of the organization committee, and module lecturer for the GROWTH Summer School 2020 (virtual)
- Teaching assistant coordinator and module lecturer at the GROWTH Winter School 2019, San Diego State University, San Diego, CA, USA
- Head technical organizer, teaching assistant coordinator, member of the organization committee, and module lecturer for the GROWTH Summer School 2018, Indian Institute of Technology Bombay, Mumbai, India
- 2017: Student Representative at the Centre for Astrophysics and Supercomputing, Swinburne University, Melbourne, VIC, Australia
- 2015–2018: Co-PI of the “Deeper Wider Faster” observational program (DWF; primary PI: Cooke)
- 2016–2018: Liaison contact between the LIGO-Virgo collaboration and DWF
- Scientific Organization Committee member, Harley Wood Winter School of Astronomy 2017, Kioloa Coastal Campus (ANU), NSW, Australia

COMPETITIVE
GRANTS AND
AWARDS

- 2021: \$76,681 – NASA/*NuSTAR* Cycle 7
- 2021: \$30,000 – Rubin Observatory Kickstarter Grant
- 2021: \$50k AWS credit grant – IST/Amazon AI4Science Cloud Credits Program
- 2020: Neil Gehrels Prize Postdoctoral Fellowship – Joint Space-Science Institute
- 2018: Vice-Chancellor’s Research Excellence Award, team prize, Swinburne University of Technology
- 2016: Best Poster Prize, CAASTRO Retreat 2016
- 2016: AAO PhD Scholarship Scheme Award
- 2015–2018: Swinburne University Postgraduate Research Award (SUPRA)
- 2014: Scholarship to Capable and Meritorious Students – Università degli Studi di Milano, Italy
- 2013: INFN/NSF LIGO-Virgo Exchange Project grant

OBSERVING
EXPERIENCE

- Keck/LRIS-ADC: 12 nights (10 Melbourne observations from Swinburne University or Caltech, 2 observations at Waimea, Hawaii)
- Keck/NIRES: 1 night, remote observations from Caltech
- 10 nights with P200/DBSP or P200/WASP (9 remote observations from Caltech, 1 observation at Mount Palomar, CA)
- 2 nights with P200/CHIMERA (remote observations)
- CTIO-Blanco/DECam: 40 nights (observer or real-time analysis supervisor)
- Subaru/Hyper-Suprime Cam: 2 nights (real-time analysis supervisor at Swinburne University)
- ANU 2.3m/WiFeS: 2 nights, remote observations from Swinburne University
- Nordic Optical Telescope/ALFOSC: 1 night at La Palma, Canary Islands

ACCEPTED
TELESCOPE
PROPOSALS
(PI ONLY)

- 2022A: **Andreoni, Igor**; Cenko, Brad; Singer, Leo; Coughlin, Michael; Ahumada Tomas; Srinivasaragavan, Gokul – *Illuminating the r-process yield of neutron star mergers with Keck spectroscopy* – allocated 2 ToO observations with Keck LRIS/DEIMOS/NIRES (PID 118/2022A_N155)
- 2021B: **Andreoni, Igor**; Graham, Matthew; Kasliwal, Mansi; Kaye, Stephen; Mahabal, Ashish; Phinney, Sterl; Smith, Roger; Walters, Richard – *A new observing mode for wide-field millisecond astronomy with ZTF* – Allocated 10 hr with Palomar 48-inch Samuel Oschin Telescope/ZTF
- NASA/*NuSTAR* Cycle 7: **Andreoni, Igor**; Lu, Wenbin; Grefenstette, Brian; Kasliwal, Mansi; Yan, Lin – *Where is the “missing energy” from superluminous supernovae?* – allocated 150ks with *NuSTAR*
- 2021A: **Andreoni, Igor**; Graham, Matthew; Kasliwal, Mansi; Kaye, Stephen; Mahabal, Ashish; Phinney, Sterl; Smith, Roger; Walters, Richard – *A new observing mode for wide-field millisecond astronomy with ZTF* – Allocated 10 hr with Palomar 48-inch Samuel Oschin Telescope/ZTF
- 2021A: **Andreoni, Igor**; Kasliwal, Mansi; De, Kishalay, Anand, Shreya – *Vetting kilonova candidates by deep LRIS spectroscopy of underlying hosts* – Allocated 1 night with Keck/LRIS (C277)
- 2020B: **Andreoni, Igor**; Graham, Matthew; Kasliwal, Mansi; Kaye, Stephen; Mahabal, Ashish; Phinney, Sterl; Smith, Roger; Walters, Richard – *A new observing mode for wide-field millisecond astronomy with ZTF* – Allocated 10 hr with Palomar 48-inch Samuel Oschin Telescope/ZTF

- 2020B: **Andreoni, Igor**; Kasliwal, Mansi; De, Kishalay – *Vetting kilonova candidates by deep LRIS spectroscopy of underlying hosts* – Allocated 1/2 night with Keck/LRIS (C286)
- 2020B: **Andreoni, Igor**; Burdge, Kevin; Hallinan, Gregg; Kulkarni, Shri; Kasliwal, Mansi; Lu, Wenbin; Mahabal, Ashish; Majid, Walid; Phinney, Sterl; Ravi, Vikram – *Catching a fast radio burst in the act with the deepest millisecond optical observations* – Allocated 1 night with Palomar 200-inch/CHIMERA (PT10)
- 2020A/2020B: **Andreoni, Igor**; Coughlin, Michael; Fremling, Christoffer; Kasliwal, Mansi; Nordin, Jakob; Singer, Leo; Stein, Robert – *Automatic Follow-up of Optical Counterparts to Gravitational Waves and Short Gamma-ray Bursts* – Allocated 55 hr of LCO 1-m telescope time via the TOM Community Development Program
- 2020A: **Andreoni, Igor**; De, Kishalay; Fremling, Christoffer; Ho, Anna; Kasliwal, Mansi; Kulkarni, Shri; Miller, Adam; Yao, Yuhang – *Rapid Spectroscopy of Young and Fast ZTF Transients* – Allocated 6 hr with Palomar 200-inch/DBSP (PT90); allocated 2 hr of ToO observations with Keck/LRIS or Keck/DEIMOS (C233T)
- 2019B: **Andreoni, Igor**; Adams, Scott; De, Kishalay; Fremling, Christoffer; Ho, Anna; Kasliwal, Mansi; Kulkarni, Shri; Miller, Adam – *Rapid Spectroscopy of Young and Fast ZTF Transients* – Allocated 6 hr with Palomar 200-inch/DBSP (PT03); allocated 3 hr of ToO observations with Keck/LRIS or Keck/DEIMOS (C251T)
- 2019B: **Andreoni, Igor**; Goldstein, Daniel (PIs); Barnes, Jennifer; Cenko, Brad; Coughlin, Michael; Kasliwal, Mansi; Nugent, Peter – *Public DECam Follow-Up of Neutron Star Mergers from the Third Gravitational Wave Observing Run* – allocated 3 nights of ToO observations (2019B-0353)
- 2019A: Goldstein, Daniel; **Andreoni, Igor** (PIs); Barnes, Jennifer; Cenko, Brad; Coughlin, Michael; Kasliwal, Mansi; Nugent, Peter – *Public DECam Follow-Up of Neutron Star Mergers from the Third Gravitational Wave Observing Run* – allocated 3 nights of ToO observations (2019A-0205)
- 2018B: **Andreoni, Igor**; Goldstein, Daniel (PIs); Barnes, Jennifer; Cenko, Brad; Coughlin, Michael; Kasliwal, Mansi; Nugent, Peter – *Public DECam Follow-Up of Neutron Star Mergers from the Third Gravitational Wave Observing Run* – allocated 3 nights of ToO observations (2018B-0330)
- 2018B: **Andreoni, Igor**; Cooke, Jeff; Kasliwal, Mansi; Lidman, Chris; Goldstein, Daniel; Nugent, Peter – *Understanding optical counterparts to gravitational waves detected during the third Advanced LIGO and Virgo Observing Run* – Allocated 30 hr of ToO observations with AAT/AAOmega (A/2018B/02)
- 2016B: **Andreoni, Igor**; Cooke, Jeff; Ryder, Stuart; Flynn, Chris; Pritchard, Tyler; Bernard, Stephanie – *Deeper, Wider, Faster at AAT: Understanding optical counterparts to the fastest bursts in the sky* – Allocated 2 nights at AAT/AAOmega (A/2016B/20)
- 2016B: **Andreoni, Igor**; Cooke, Jeff; Pritchard, Tyler; Ryder, Stuart; Flynn, Chris; Petroff, Emily; Keane, Evan; Murphy, Michael – *Deeper, Wider, Faster: Optical counterparts to the fastest bursts in the sky* – Allocated 3 nights at CTIO-Blanco/DECam (2016B-0904)
- 2016A: **Andreoni, Igor**; Cooke, Jeff; Pritchard, Tyler; Flynn, Chris; Murphy, Michael; Keane, Evan; Petroff, Emily; Caleb, Manisha – *Deeper, Wider, Faster: Optical counterparts to the fastest bursts in the sky* – Allocated 2 nights at CTIO-Blanco/DECam (2016A-0619)

Co-I in proposals for observing time with the following observatories: *Neil Gehrels Swift Observatory, XMM-Newton, Hubble Space Telescope, Subaru, VLT, Blanco/DECam, Palomar 200-inch, Palomar 60-inch, SOAR, SkyMapper, LCOGT, Gemini, Keck, SALT, Spitzer, REM, ATCA, VLBA*

TEACHING
AND STUDENT
SUPERVISION

- June–September 2021: Mentor of SURF student Derek Ing, Caltech, Pasadena, CA, USA
- 2020–2021: Co-supervisor of Masters student Kamile Lukosiute, University of Amsterdam, Amsterdam, Netherlands
- Hands-on module lecturer, GROWTH Summer School 2020, Liverpool John Moores University, UK (moved virtual)
- July–August 2020: Mentor of student Nathan Campos for the Freshman Summer Research Institute (FSRI) program, Caltech, Pasadena, CA, USA
- Hands-on module lecturer, GROWTH Summer School 2019, San Diego State University, San Diego, CA, USA
- June–September 2019: Mentor of SURF student Tegan Loveridge, Caltech, Pasadena, CA, USA
- Hands-on module lecturer, GROWTH Winter School 2018, Indian Institute of Technology Bombay, Mumbai, India
- January 2018 – Mentor of undergraduate student Gillian Carter, *Science and Technology Internship*, Swinburne University of Technology, Melbourne, VIC, Australia
- June 2017: Mentor high school student Alex Sasik, work-experience project, Swinburne University of Technology, Melbourne, VIC, Australia.
- Semester 2, 2016: Laboratory – *Discovering the Universe*, Swinburne University of Technology, Melbourne, VIC, Australia.
- Semester 1, 2016: Physics tutorials – *Energy and Motion*, Swinburne University of Technology, Melbourne, VIC, Australia.
- 2008–2015: Private tutor in Physics and Mathematics to students attending: the “Politecnico di Milano” university (Mechanical Engineering, Construction Engineering, Civil Engineering, Architecture); the “Università degli Studi di Bergamo” university (Economics); High School (Scientific High School, Artistic High School, Technical and Industrial High School); Middle School; Primary School

INVITED
TALKS

- April 13th, 2022: Colloquium – university of Maryland, MD, USA
- December 15th, 2021: Explosive Astro talk – UC Berkeley, CA, USA
- November 12th, 2021: Seminar – Center for Gravitation, Cosmology, and Astrophysics; University of Wisconsin-Milwaukee, WI, USA
- April 30th, 2021: Colloquium – Joint Space-Science Institute
- April 12th–17th, 2021: Ninth International Fermi Symposium – virtual (invited talk contribution)
- October 8th, 2020: KICP Seminar – Kavli Institute for Cosmological Physics, University of Chicago, Chicago, IL, USA
- September 21st, 2020: Cosmology Seminar - University of Minnesota, Minneapolis, MN, USA
- February 10th–12th, 2020: GW Genesis Third Annual Area Symposium – Konan University, Kobe, Japan (invited talk contribution)
- January 21st, 2020: CaJAGWR Seminar - Caltech, Pasadena, CA, USA
- September 20th, 2019: IPAC Seminar - IPAC, Pasadena, CA, USA
- May 3rd–4th, 2019: LIGO/LSST Workshop – Columbia University, New York City, NY, USA (invited talk contribution)

- November 13th-17th, 2017: IAU Symposium 339, Southern Horizons in Time-Domain Astronomy – Stellenbosch, South Africa (invited panelist)
- July 27th, 2017: Colloquium - Osservatorio Astronomico di Brera, Merate, Italy
- February 14th, 2017: CAASTRO Melbourne Area Meeting - The University of Melbourne, Melbourne, VIC, Australia
- November 18th, 2016: Colloquium - AAO Headquarters, Sydney, NSW, Australia
- October 12th, 2016: Colloquium - The University of Melbourne, Melbourne, VIC, Australia
- November 3rd, 2015: LIGO-Virgo Collaboration internal seminar - virtual

CONFERENCES,
WORKSHOPS
AND SCHOOLS

- March 28th-30th, 2022: Workshop – *From Data to Software to Science Workshop* – Flatiron Institute, New York City, NY, USA
- February 8th-10th, 2022: Workshop *Exploring the Transient Universe with the Nancy Grace Roman Space Telescope* – virtual
- December 14th-December 17th, 2021: GWPAW 2021 Conference – *The Gravitational Wave Physics and Astronomy Workshop* – Hannover, Germany (talk contribution)
- November 29th-December 3rd, 2021: IAU Symposium 363, *Neutron Star Astrophysics at the Crossroads: Magnetars and the Multimessenger Revolution* – virtual (talk contribution)
- November 16th-17th, 2021: Second Rubin SCOC Workshop – virtual (session chair, talk contribution)
- April 19th-23rd, 2021: Rubin-Athena Synergy Workshop – virtual (panel co-chair)
- October 21st, 2020: *ZTF Collaboration Meeting 2020* – virtual (talk contribution)
- March 26th-27th, 2020: Workshop, *Enabling novel real-time multi-messenger studies* – virtual
- March 23rd-25th, 2020: *ZTF Collaboration Meeting 2020* – virtual
- September 30th-October 4th, 2019: *TOM Toolkit Workshop* – Carnegie Observatories, Pasadena, CA, USA
- September 3th-5th, 2019: *ZTF Collaboration Meeting 2019* – University of Washington, Seattle, WA, USA (talk contribution)
- August 8th-9th, 2019: *GROWTH Annual Meeting 2019* – San Diego State University, San Diego, CA, USA (talk contribution)
- April 25rd-26th, 2019: Workshop – *Enabling Multi-Messenger Astrophysics in the Big Data Era* – STScI, Baltimore, MD, USA (talk contribution)
- April 22rd-24th, 2019: Symposium, *The Deaths and Afterlives of Stars* – STScI, Baltimore, MD, USA (poster contribution)
- March 26th-29th, 2019: Asterics conference – *The New Era of Multi-Messenger Astronomy* – Groningen, Netherlands (talk contribution)
- December 6th-8th, 2018: *GROWTH Annual Meeting 2018* – IIT Bombay, Mumbai, India (talk contribution)
- October 17th, 2018: Workshop, *Deep Learning for Multimessenger Astrophysics: Real-Time Discovery at Scale* – NCSA, Urbana, IL, USA (talk contribution)
- September 18th-19th, 2018: *Swinburne-Caltech Data Science Workshop* – Caltech, Pasadena, CA, USA

- December 11th–15th, 2017: Conference – *Deciphering the Violent Universe* – Playa del Carmen, Q. Roo, Mexico (poster contribution)
- November 13th–17th, 2017: IAU Symposium 339 – *Southern Horizons in Time-Domain Astronomy* – Stellenbosch, South Africa (talk contribution)
- November 8th–10th, 2017: *OzGrav Annual Retreat 2017* – Melbourne, VIC, Australia (talk contribution)
- May 16th–18th, 2017: *ITSO Science Symposium 2017* – Mt. Stromlo Observatory, Canberra, ACT, Australia (talk contribution)
- November 28th–30th, 2016: *CAASTRO Annual Retreat 2016* – Busselton, WA, Australia (poster contribution)
- July 3rd–8th, 2016: *ASA Annual Scientific Meeting 2016* – Sydney, NSW, Australia (talk contribution)
- May 23rd–25th, 2016: Workshop – *The Mysterious Connection Between Superluminous Supernovae and Gamma Ray Bursts* – STScI, Baltimore, MD, USA (poster contribution)
- May 16th–19th, 2016: Conference – *The Transient Sky* – Harvard University, Cambridge, MA, USA (poster contribution)
- March 3rd, 2016: ausSMC Workshop – *Raising your profile and working with the Media* – Swinburne University, Melbourne, Australia
- November 16th–18th, 2015: CAASTRO Annual Retreat 2015 – Leura, NSW, Australia (talk contribution)
- September 17th–18th-, 2015: *Keck Science Meeting* – UCLA, Los Angeles, CA, USA
- August 28th–29th, 2015: Workshop – *Boutiques & Experiments* – Caltech, Pasadena, CA, USA
- August 24th–27th, 2015: *iPTF Summer School 2015* – Caltech, Pasadena, CA, USA (poster contribution)
- July 5th–10th, 2015: *ASA Annual Scientific Meeting 2015* – Fremantle, Australia (talk contribution)
- July 2nd–5th, 2015: *Harley Wood School for Astronomy 2015* – Rottneest Island, Australia
- June 11th, 2015: Workshop – *Multi-messenger observations and studies of core-collapse supernovae* – Università degli Studi di Urbino “Carlo Bo”, Urbino, Italy
- April 15th, 2015: Workshop – *The needle in the haystack: Optical transient searches in the aLIGO era* – Monash University, Clayton, Australia (talk contribution)
- January 13th–24th, 2014: Astrophysics School – *Look & Listen: Electromagnetic and gravitational wave signals from compact objects* – Playa del Carmen, Q. Roo, Mexico

OUTREACH ACTIVITIES

- January, 2021: Astronomy on Tap Los Angeles, “*The Cosmic Gold Rush*”
- August, 2020: Podcast, “*From milliseconds to years: How fast transient objects appear and disappear in the sky?*”, in collaboration with The Edge of Science
- May, 2020: Interview, “*A bar talk with the expert: light pollution*”, in collaboration with L’EcoPost and Make You Greener
- March 15th, 2019: Public Lecture, “*Look & Listen to the Violent Universe*”, Glendale City College, Glendale, CA, USA
- May 11th, 2018: “*Look&Listen to the Universe*”, Physics in the Pub, Melbourne, Australia
- April, 2018: Interview, “*Rintracciare i misteriosi fast radio burst in un ambiente cosmico estremo*”, published in the research magazine OggiScienza

- November, 2017: Interview about the discovery of supernova iPTF14hls (*Nature* paper) published in Australian newspapers: The Age, Sydney Morning Herald, Canberra Times
- October 20th, 2017: Public Lecture, “*The Violent Universe: explosions, transient events, and gravitational waves*”, Lecture Theatre, Swinburne University of Technology, Melbourne, Australia
- October, 2017: One article written and one interview released for the Italian newspapers BergamoPost and L’Eco di Bergamo
- October 16th, 2017: Contribution to the OzGrav, Swinburne, and AAO Press Releases for the first multi-messenger discovery and follow up of an electromagnetic transient associated with a gravitational wave detection (GW170817)
- September 23rd, 2017: AstroLight Festival volunteer, Scienceworks, Melbourne, Australia
- July 2017: OzGrav video – *We’ve discovered Gravitational Waves, what’s next?*
- June 4th–18th, 2016: CAASTRO Astronomer in Residence, Ayers Rock (Uluru), Australia
- January 20th, 2016: Invited speaker at the Mornington Peninsula Astronomical Society. Title of the talk: *The Violent Sky in Time Domain*, Frankston, VIC, Australia
- August 2nd, 2015: Solar spots observations and AstroTour guide for the Open Day of the Swinburne University of Technology, Melbourne, VIC, Australia
- June 28th, 2015: Interview released for the Italian newspaper “L’Eco di Bergamo”
- 2015–2018: AstroTour guide, Swinburne University of Technology, Melbourne, VIC, Australia
- October 2014: Book – “*Le Forme della Vita: Scienza e Bellezza nelle Lezioni dei Nobel*” (Shapes of Life: Science and Beauty in Nobel Laureates’ Lectures) – scientific curator, transcriber, and translator (from English to Italian) of lectures held by Nobel laureates at BergamoScienza science festival. Published in 300K copies by “Il Corriere della Sera”, RCS MediaGroup, via Solferino 28, 20121 Milano, Italy