

Yvette Nora Cendes

Dunlap Institute for Astronomy and Astrophysics
University of Toronto
55 St George St
Toronto, ON M5G2H5
Canada

+1-416-655-5940 (Canada)
yvette.cendes@gmail.com
www.yvettecedes.com

EDUCATION

Ph.D. in Astronomy

Leiden, The Netherlands

Leiden Observatory, University of Leiden

expected: spring 2019

With predoctoral research conducted at the University of Amsterdam (The Netherlands) and the Dunlap Institute for Astronomy & Astrophysics, University of Toronto (Canada)

Thesis title: *Time Domain Imaging of Transient and Variable Radio Sources*

M.Sc. in Physics

Cleveland, OH, USA

Case Western Reserve University (CWRU)

conferred: August 2011

Thesis title: *An Extended Study on the Effects of Incorrect Coordinates on Surface Detector Timing For the Pierre Auger Observatory*

B.Sc. in Physics

Cleveland, OH, USA

Case Western Reserve University

conferred: January 2009

Thesis title: *On the Test, Analysis, and Feasibility of a Cherenkov Radiation Detector for the Auger North Observatory*

RESEARCH EXPERIENCE

Graduate Research Assistant

2011-present

- Research towards a Ph.D. in astronomy with thesis topics covering LOFAR transient surveys, RFI mitigation in transient searches, SN 1987A observations with ATCA, and Type Ia SNe observations and analysis with VLA and JVLA data (Supervisors: Prof. Alexander Tielens (Leiden), Prof. Bryan Gaensler (Toronto))

Research Assistant- CWRU

2010-2011

- Research towards a M.Sc. in Physics involving GPS timing calibration and testing for surface detectors in the Pierre Auger Observatory (Supervisor: Dr. Corbin Covault)

Laboratory Assistant- CWRU

2006-2009

- Analyzed atmospheric data for the gamma ray detector STACEE, designed computer algorithms to analyze STACEE data in a preliminary Optical SETI survey, designed and tested a Cherenkov radiation detector for the Pierre Auger Observatory (Supervisor: Dr. Corbin Covault)

- Conducted RFI analysis and compiled an error database for the Allen Telescope Array (ATA) (Supervisor: Dr. Jill Tarter)

RESEARCH PUBLICATIONS

Refereed Publications

First Author:

1. The Re-Acceleration of the Shockwave in the Radio Remnant of SN 1987A. 2018, **Y. Cendes** et al. ApJ, *in press*. [arxiv: 1809.02364]
2. RFI flagging implications for short-duration transients. **Cendes, Y.** et al. 2018, Astronomy and Computing, 23, p. 103-114. [arxiv: 1804:04708]
3. Radio Constraints on the Progenitors and Evolution of Type Ia SN 1972E and SN 1895B. **Y. Cendes** et al. 2018, *in prep*.

Coauthor:

4. Identifying transient and variable sources in radio images. Rowlinson, A. & 18 others including **Y. Cendes**. *submitted to Astronomy and Computing*. [1808.07781]
5. New methods to constrain the radio transient rate: results from a survey of four fields with LOFAR. Carbone, D. & 25 authors including **Cendes, Y. N.** 2016, MNRAS, 459, Issue 3, p. 1361-3174 [arxiv: 1411:7928]
6. Low-radio-frequency eclipses of the redback pulsar J2215+5135 observed in the image plane with LOFAR. Broderick, J. W. & 33 coauthors including **Cendes, Y.** 2016, MNRAS, 459, 3, p. 2681-2689 [arxiv: 1604:05722]
7. LOFAR MSSS: Detection of a low-frequency radio transient in 400 hrs of monitoring of the North Celestial Pole. Stewart, A.J. & 102 coauthors including **Y. Cendes**. 2016, MNRAS, 456, 3, p. 2321-2343 [arxiv: 1512:00014]
8. The LOFAR Multifrequency Snapshot Sky Survey (MSSS) I. Survey description and first results. G. H. Heald & 140 authors including **Y. Cendes**. 2015, A&A, 582, id.A123. [arxiv: 1509.01257]
9. The LOFAR Transients Pipeline. Swinbank, John D. & 27 authors including **Cendes, Yvette**. 2015, Astronomy and Computing, 11, p. 25-48 [arxiv: 1503.01526]

Other Publications

Proceedings:

10. Astronomy on Reddit: Outreach Using the Front Page of the Internet. **Cendes, Yvette N.** 2018, IAU Communicating Astronomy with the Public Conference.

Telegrams:

11. Supernova 2015Q in NGC 3888 = Psn J11473508+5558147, Central Bureau Electronic Telegrams, 4128, 1 (2015).
Wiggins, P. & 49 authors including **Cendes, Y.**
12. ASASSN-15lu is a Type Ia Supernova, The Astronomer's Telegram, #7707 (2015)
Leonard, D. C. & 47 others including **Cendes, Y.**
13. Optical Spectroscopy of PSN J15044078+1237436, The Astronomer's Telegram, #7690 (2015)
Leonard, D. C. & 47 others including **Cendes, Y.**
14. PSN J11473508+5558147 is a Type Ib Supernova Near Maximum Light, The Astronomer's Telegram, #7680 (2015)
Leonard, D. C. & 47 others including **Cendes, Y.**
15. ASASSN-15lo is a Post-Maximum Normal Type Ia Supernova, The Astronomer's Telegram, #7675
Leonard, D. C. & 47 others including **Cendes, Y.**

PRESENTATIONS AND MEETINGS

Conference Presentations: (10 talks, 4 posters)

Shocking Supernovae	Stockholm, Sweden
The Re-Acceleration of the Shockwave from SN 1987A	5/2018
IAU- Communicating Astronomy with the Public 2018	Fukuoka, Japan
Reddit Astronomy: Outreach Using the Front Page of the Internet	3/2018
Aspen 2017 Winter Conference on Fast Radio Bursts	Aspen, CO, USA
Poster: RFI Flagging Implications for Short-Duration Transients	2/2017
Netherlands Astronomy Conference 2016	Dalfsen, The Netherlands
Tuning in the Transient Sky with AARTFAAC	5/2016
LOFAR Science 2016	Zandvoort, The Netherlands
The first Transient Survey with AARTFAAC	5/2016
Science at Low Frequencies II	Albuquerque, NM, USA
Tuning in the Low Frequency Transient Radio Sky with AARTFAAC	12/2015
LOFAR Science 2015	Assen, The Netherlands
2 nd LOFAR Users Meeting- Transients KSP Speaker	5/2015
LOFAR Transients Key Science Project Meeting	Jodrell Bank Observatory, UK
Observations of Swift J1644+57 and Implications for Short Duration Transients	9/2014
Transients Key Science Project Meeting	Amsterdam, The Netherlands
A Modified RFI Flagger for Transient Radio Signals	1/2014

The Universe @ Ger's (wave)-length	Groningen, The Netherlands
A Modified RFI Flagger for Transient Radio Signals	11/2013
Explosive Transients: Lighthouses of the Universe	Santorini, Greece
LOFAR Observations of Tidal Disruption Candidate Swift J1644+57	9/2013
Netherlands Astronomy Conference 2014	Lommel, Belgium
Poster: A Modified RFI Flagging Strategy for Transients	5/2013
LOFAR Science Workshop	Dalfsen, The Netherlands
Poster- A Modified RFI Flagger for Transient Radio Signals	3/2013
AAS Meeting #219	Austin, TX, USA
Poster- The AARTFAAC Project: Searching for Transient Radio Signals with LOFAR	1/2012
<i>Department Seminars/Colloquia</i>	
Seminar: Oxford University	Oxford, UK
The Life and Times of SN 1987A	1/2018
Seminar: West Virginia University	Morgantown, WV, USA
The Life and Times of SN 1987A	12/2017
Interstellar Medium Seminar: Leiden Observatory	Leiden, The Netherlands
Recent Radio Observations of SN 1987A	9/2017
G2000 seminar, University of Toronto	Toronto, ON, Canada
First Transient Survey with AARTFAAC	1/2017
Seminar: API	Amsterdam, The Netherlands
How to Be a Science Writer	9/2014
Seminar: API	Amsterdam, The Netherlands
A Modified RFI Flagger for Transient Radio Signals	9/2013

PROPOSALS

Principal Investigator, LOFAR	2016
• Cycle 5 proposal, "Imaging the Pulsars in Globular Cluster M13"	
Co-Investigator, ATCA	2018
• Semester 2018OCTS, "Imaging the Pulsars in Globular Cluster M13"	
Co-Investigator, ATCA	2017
• Semester 2017OCTS, "Imaging the Pulsars in Globular Cluster M13"	
Co-Investigator, ATCA	2017
• Semester 2017APRS, "Imaging the Pulsars in Globular Cluster M13"	

PROFESSIONAL ACTIVITIES

- Admissions Committee, Dunlap Instrumentation Summer School (2018)
- Volunteer, Astrotours and Astronomy on Tap, University of Toronto (2017-2018)
- Assistant, Ph.D. Recruitment, Anton Pannekoek Institute (2013-2015)
- Astrobites Contributor and Editor (2013-present)
- Astrobites hiring committee (2014-present)
- Member, American Astronomical Society (AAS) (2011-present)

TEACHING EXPERIENCE

Counselor, University of Arizona Advanced Astronomy Camp 2015, 2018

- Gave lectures in introductory radio astronomy and supernovae to high school students, provided assistance with student observing projects using the Arizona Radio Observatory 12m Radio Telescope and the Heinrich Hertz Submillimeter Telescope (SMT), oversaw observations that resulted in 5 astronomer's telegrams

Co-Supervisor, Bachelor Student Project 2016

- Assisted in two final year bachelor student projects to distinguish and categorize meteor scatter signals in LOFAR data

Teaching Assistant- University of Amsterdam 2010-2013

- Led recitations and provided observing assistance for the courses "3rd Year Practicum," "Astrofysica," "M.Sc. Practicum"

Teaching Assistant- Case Western Reserve University 2009-2010

- Laboratory assistant for "Introductory Physics I," "Advanced Laboratory Physics II"

OUTREACH

Selected Publications

- "Cosmic Firecrackers: The Mystery of Fast Radio Bursts." *Astronomy* (cover article), February 2018.
- "The Standard Model of Physics at 50." *Scientific American* blog, 2018.
- "Didn't Scientists Already Know Where Cosmic Rays Come From?" *Scientific American* blog, September 2017.
- "When will it be 'Game Over' for the Universe?" *Discover*, March 2017.
- "Stuff Physicists Don't Understand: Sonoluminescence" *Scientific American* blog, Oct 2016.
- "Untangling the Magnetic Universe." *Astronomy*, April 2016.
- "The Weirdest Star in the Universe." *Astronomy*, September 2015.

- “Anomaly from Above.” *Discover*, June 2015.
- “The Telescope at the End of the World.” *Astronomy*, February 2015.
- “The Secret Lives of Supermassive Stars.” *Astronomy*, May 2014.
- “Tuning in to Radio Jupiters.” *Sky & Telescope*, January 2014.
- “A New Eye on the Violent Universe.” *Astronomy*, March 2013- cover article, nominated for the American Institute of Physics Science Communication Awards
- “Tales from the Dwingeloo Radio Observatory.” *Sky & Telescope*, January 2013.

Public Lectures

- “The Life And Times of Supernovae.” Brentwood Library, Toronto, July 2018.
- “Is Anybody Out There?” panel discussion, Astronomy & Space Exploration Society, University of Toronto, March 2018
- “Supernovae: Witnessing Cosmic Explosions Firsthand.” Astronomy on Tap Toronto, November 2017.
- The Life and Times of SN 1987A.” Astrotours, University of Toronto, May 2017
- “Capturing Cosmic Ray Monsters.” Science Café Cleveland, 2010.

Other Media Appearances

- “Astronomy Year in Review,” Television Interview, CP 24 Toronto, December 2017.
- “Is Star Wars allemaal fantasie, of leven er toch ergens Wookiees?” radio appearance, Amsterdam FM (December 2015)
- Various radio Appearances, “English Breakfast Radio,” Wereld 99.4FM- Amsterdam (2014)
- Reddit “Ask Me Anything” (AMA) Events- November 2017, October 2015, September 2014
- Radio Appearance, “The Sound of Ideas,” WCPN (NPR station) 90.3FM- Cleveland, OH (2010)
- Various amateur (“Ham”) radio activities and promotions (licensed since 2002, callsign KB3HTS)

REFEREES
