

Odette Toloza Castillo

Curriculum Vitae

"When it is darkest, men see the stars" — Ralph Waldo Emerson

Education

- 2014–2018 **PhD in Physics**, *University of Warwick*, UK.
- 2011–2012 **Master in Astrophysics**, *University of Valparaíso*, Chile, GPA – 6.6 (scale 1 to 7).
- 2007–2010 **Bachelor in Physics**, *University of Valparaíso*, Chile, GPA – 5.5 (scale 1 to 7).

Observational Experience

- PARANAL 8.2m-UT2/X-Shooter
- CTIO 4.0m-Blanco/ISPI – 1.5m/SIMON – 1.0m/OSU Y4KCam Imager – 0.9m/CCD
- LCO Baade/IMACS – Clay/FIRE – Du Pont/DirectCCD
- Mauna Kea IRTF/SpecX
- ORM INT/WFC

Teaching

- 2014–2017 **Lab demonstrator**, *Electronics Workshop Module*, PX140, The University of Warwick.
- 2012–2013 **teaching**, *Introduction to Physics module*, CIV124, The University of Valparaiso.
<http://civil.uv.cl/>
- 2011 **teaching**, *Physics module*, PCI101, The University of Valparaiso.
<http://informatica.uv.cl/>
- 2008–2010 **support modules**, *Mechanics*, The University of Valparaiso.

Awards

- 2016–2018 **RAS small grant scheme**, <https://www.ras.org.uk/awards-and-grants>.
- 2014–2018 **CONICYT**, <http://www.conicyt.cl/becasconicyt/2013>.
- 2012 **PIA-REU program**, <http://www.ctio.noao.edu/noao/content/ctio-reupia-2012>.
- 2011–2012 **BECA DEL MAGISTER**.
- 2008–2010 **Beca Bicentenario**, <https://www.chileatiende.gob.cl/Bicentenario>.
- 2007 **Beca de HONOR**, *Distinction*, <http://www.uv.cl/Beca-de-Honor>.

Communication skills

Talks

- 2018 **21th European White Dwarf Workshop (EUROWD)**, Austin, USA.
"How is the disrupted planetesimal at the pulsating white dwarf G29-38 accreted?"

- 2018 **COSPAR: Nova Eruptions, Cataclysmic Variables and Related Systems: Observational vs. Theoretical Challenges in the 2020 Era**, Pasadena, USA.
"GW Librae: a unique laboratory for pulsations in an accreting white dwarf"
- 2018 **Seminars and Colloquia at ESO**, Santiago, Chile.
"Cataclysmic variables with nuclear evolved companions "
- 2018 **Observational Signatures of Type Ia Supernova Progenitors III** , Leiden, Netherlands.
"cataclysmic variables with evolved donors"
- 2017 **The Golden Age of Cataclysmic Variables and Related Objects-IV**, Palermo, Italy.
"Cataclysmic variables with evolved secondaries"
- 2017 **Ultraviolet Sky Surveys: The needs and the means**, Tel Aviv, Israel.
"Constraining the single degenerate channel from ultraviolet spectroscopic"
- 2016 **20th European White Dwarf Workshop (EUROWD)**, Coventry, United Kingdom.
"Constraints on the single degenerate channel from white dwarf atmospheric compositions"
- 2015 **The Golden Age of Cataclysmic Variables and Related Objects-III**, Palermo, Italy.
"GW Lib: a unique laboratory for pulsations"
- 2014 **First Chilean Astronomy Web (CHAW)**, Santiago de Chile, Chile.

Poster Presentations

- 2014 **19th European White Dwarf Workshop (EUROWD)**, *Montreal*, Canada, GW Lib: a Unique Laboratory for White Dwarf Pulsations.
<http://adsabs.harvard.edu/abs/2015ASPC..493..253T>
- 2013 **221st American Astronomical Society (AAS)**, *Long Beach*, California, Hunting for Brown Dwarf Exoplanets analogs.
<http://adsabs.harvard.edu/abs/2013AAS...22115815T>
- 2012 **SOciedad CHilena AStronomia (SOCHIAS)**, *Valparaiso*, Chile, Optical Fell in Mrk493.
- 2011 **Asociacion Argentina de Astronomia (AAA)**, *San Juan*, Argentina, Observacion de lentes gravitatorias con ALMA.
<http://adsabs.harvard.edu/abs/2011BAAA...54..385B>

Programming and computing skills

Advanced MESA, python MATHEMATICA, IDL, IRAF, PERIOD04
intermediate fortran, C/C++

Refereed Publications (H factor – 8)

- Title Post common envelope binaries from SDSS. VIII. Evidence for disrupted magnetic braking, 2010, A&A, 513L, 7S
- Authors Schreiber, M. R.; Gänsicke, B. T.; Rebassa-Mansergas, A.; Nebot Gomez-Moran, A.; Southworth, J.; Schwöpe, A. D.; Müller, M.; Papadaki, C.; Pyrzas, S.; Rabitz, A.; Rodríguez-Gil, P.; Schmidtobreick, L.; Schwarz, R.; Tappert, C.; **Toloza, O.**; Vogel, J.; Zorotovic, M.
- Title Post common envelope binaries from SDSS. XII. The orbital period distribution, 2011, A&A, 536A, 43N
- Authors Nebot Gómez-Morán, A.; Gänsicke, B. T.; Schreiber, M. R.; Rebassa-Mansergas, A.; Schwöpe, A. D.; Southworth, J.; Aungwerojwit, A.; Bothe, M.; Davis, P. J.; Kolb, U.; Müller, M.; Papadaki, C.; Pyrzas, S.; Rabitz, A.; Rodríguez-Gil, P.; Schmidtobreick, L.; Schwarz, R.; Tappert, C.; **Toloza, O.**; Vogel, J.; Zorotovic, M.
- Title Post common envelope binaries from SDSS. XIII. Mass dependencies of the orbital period distribution, 2011, A&A, 536L, 3Z
- Authors Zorotovic, M.; Schreiber, M. R.; Gänsicke, B. T.; Rebassa-Mansergas, A.; Nebot Gómez-Morán, A.; Southworth, J.; Schwöpe, A. D.; Pyrzas, S.; Rodríguez-Gil, P.; Schmidtobreick, L.; Schwarz, R.; Tappert, C.; **Toloza, O.**; Vogt, N.
- Title Post-common envelope binaries from SDSS - XVI. Long orbital period systems and the energy budget of common envelope evolution, 2012, MNRAS, 423, 320R
- Authors Rebassa-Mansergas, A.; Zorotovic, M.; Schreiber, M. R.; Gänsicke, B. T.; Southworth, J.; Nebot Gómez-Morán, A.; Tappert, C.; Koester, D.; Pyrzas, S.; Papadaki, C.; Schmidtobreick, L.; Schwöpe, A.; **Toloza, O.**
- Title Nearby M, L, and T Dwarfs Discovered by the Wide-field Infrared Survey Explorer (WISE), 2013, PASP, 125, 809T
- Authors Thompson, Maggie A.; Kirkpatrick, J. Davy; Mace, Gregory N.; Cushing, Michael C.; Gelino, Christopher R.; Griffith, Roger L.; Skrutskie, Michael F.; Eisenhardt, Peter R. M.; Wright, Edward L.; Marsh, Kenneth A.; Mix, Katholeen J.; Beichman, Charles A.; Faherty, Jacqueline K.; **Toloza, Odette**; Ferrara, Jocelyn; Apodaca, Brian; McLean, Ian S.; Bloom, Joshua S.
- Title The composition of a disrupted extrasolar planetesimal at SDSS J0845+2257 (Ton 345), 2015, MNRAS, 451, 3237W
- Authors Wilson, D. J.; Gänsicke, B. T.; Koester, D.; **Toloza, O.**; Pala, A. F.; Breedt, E.; Parsons, S. G.
- Title The first pre-supersoft X-ray binary, 2015, MNRAS, 452, 1754P
- Authors Parsons, S. G.; Schreiber, M. R.; Gänsicke, B. T.; Rebassa-Mansergas, A.; Brahm, R.; Zorotovic, M.; **Toloza, O.**; Pala, A. F.; Tappert, C.; Bayo, A.; Jordán, A.
- Title GW Librae: a unique laboratory for pulsations in an accreting white dwarf, 2016, MNRAS, 459, 3929T
- Authors **Toloza, O.**; Gänsicke, B. T.; Hermes, J. J.; Townsley, D. M.; Schreiber, M. R.; Szkody, P.; Pala, A.; Beuermann, K.; Bildsten, L.; Breedt, E.; Cook, M.; Godon, P.; Henden, A. A.; Hubeny, I.; Knigge, C.; Long, K. S.; Marsh, T. R.; de Martino, D.; Mukadam, A. S.; Myers, G.; Nelson, P.; Oksanen, A.; Patterson, J.; Sion, E. M.; Zorotovic, M.
- Title GW Librae: Still Hot Eight Years Post-outburst, 2016, AJ, 152, 48S

- Authors Szkody, Paula; Mukadam, Anjum S.; Gänsicke, Boris T.; Chote, Paul; Nelson, Peter; Myers, Gordon; **Toloza, Odette**; Waagen, Elizabeth O.; Sion, Edward M.; Sullivan, Denis J.; Townsley, Dean M.
- Title A radio-pulsing white dwarf binary star, 2016, *Natur*, 537, 374M
- Authors Marsh, T. R.; Gänsicke, B. T.; Hümmerich, S.; Hamsch, F.-J.; Bernhard, K.; Lloyd, C.; Breedt, E.; Stanway, E. R.; Steeghs, D. T.; Parsons, S. G.; **Toloza, O.**; Schreiber, M. R.; Jonker, P. G.; van Roestel, J.; Kupfer, T.; Pala, A. F.; Dhillon, V. S.; Hardy, L. K.; Littlefair, S. P.; Aungwerojwit, A.; Arjyotha, S.; Koester, D.; Bochinski, J. J.; Haswell, C. A.; Frank, P.; Wheatley, P. J.
- Title Spectroscopy from the Hubble Space Telescope Cosmic Origins Spectrograph of the Southern Nova-like BB Doradus in an Intermediate State, 2016, *ApJ*, 833, 146G
- Authors Godon, Patrick; Sion, Edward M.; Gänsicke, Boris T.; Hubeny, Ivan; de Martino, Domitilla; Pala, Anna F.; Rodríguez-Gil, Pablo; Szkody, Paula; **Toloza, Odette**
- Title Hubble Space Telescope Ultraviolet Light Curves Reveal Interesting Properties of CC Sculptoris and RZ Leonis, 2017, *AJ*, 153, 123S
- Authors Szkody, Paula; Mukadam, Anjum S.; **Toloza, Odette**; Gänsicke, Boris T.; Dai, Zhibin; Pala, Anna F.; Waagen, Elizabeth O.; Godon, Patrick; Sion, Edward M.
- Title 280 one-opposition near-Earth asteroids recovered by the EURONEAR with the Isaac Newton Telescope, 2018, 2018, *A&A*, 609A, 105V
- Authors Vaduvescu, O.; Hudin, L.; Mocnik, T., et al
- Title Three Hypervelocity White Dwarfs in Gaia DR2: Evidence for Dynamically Driven Double-degenerate Double-detonation Type Ia Supernovae, 2018, *ApJ*, 865, 15S
- Authors Shen, Ken J.; Boubert, Douglas; Gänsicke, Boris T.; Jha, Saurabh W.; Andrews, Jennifer E.; Chomiuk, Laura; Foley, Ryan J.; Fraser, Morgan; Gromadzki, Mariusz; Guillochon, James; Kotze, Marissa M.; Maguire, Kate; Siebert, Matthew R.; Smith, Nathan; Strader, Jay; Badenes, Carles; Kerzendorf, Wolfgang E.; Koester, Detlev; Kromer, Markus; Miles, Broxton; Pakmor, Rüdiger; Schwab, Josiah; **Toloza, Odette**; Toonen, Silvia; Townsley, Dean M.; Williams, Brian J.
- Title Fast spectrophotometry of WD 1145+017, 2018, *MNRAS*, 481, 703I
- Authors Izquierdo, Paula; Rodríguez-Gil, Pablo; Gänsicke, Boris T.; Mustill, Alexander J.; **Toloza, Odette**; Tremblay, Pier-Emmanuel; Wyatt, Mark; Chote, Paul; Eggl, Siegfried; Farihi, Jay; Koester, Detlev; Lyra, Wladimir; Manser, Christopher J.; Marsh, Thomas R.; Pallé, Enric; Raddi, Roberto; Veras, Dimitri; Villaver, Eva; Portegies Zwart, Simon
- Title Dust production and depletion in evolved planetary systems, 2018, *MNRAS*, 481, 2601F
- Authors Farihi, J.; van Lieshout, R.; Cauley, P. W.; Dennihy, E.; Su, K. Y. L.; Kenyon, S. J.; Wilson, T. G.; **Toloza, O.**; Gänsicke, B. T.; von Hippel, T.; Redfield, S.; Debes, J. H.; Xu, S.; Rogers, L.; Bonsor, A.; Swan, A.; Pala, A. F.; Reach, W. T.
- Title Broadening of Ly α by neutral helium in DBA white dwarfs, 2018, *MNRAS*, 481, 4323G
- Authors Gänsicke, Boris T.; Koester, Detlev; Farihi, Jay; **Toloza, Odette**
- Title Multi-wavelength observations of the EUV variable metal- rich white dwarf GD 394, Manuscript submitted for publication to *MNRAS*, 2018
- Authors David J. Wilson, Boris T. Gänsicke, Detlev Koester, **Odette Toloza**, Jay B. Holberg, Simon P. Preval, Martin A. Barstow, Claudia Belardi, Matthew R. Burleigh, Sarah L. Casewell, P. Wilson Cauley, Paul Chote, Jay Farihi, Mark A. Hollands, Knox S. Long, Seth Redfield

submitted papers

Title *A planetesimal orbiting a white dwarf on a two hour period*, Manuscript submitted for publication to Science, 2018

Authors Christopher J. Manser, Boris T. Gänsicke, Siegfried Eggl, Mark Hollands, John D. Landstreet, Wladimir Lyra, Thomas R. Marsh, Farzana Meru, Alexander J. Mustill, Anna F. Pala, Pablo Rodríguez-Gil, Paula Izquierdo Sanchez, **Odette Toloza**, Dimitri Veras, David J. Wilson, Matthew R. Burleigh, Melvyn B. Davies, Jay Farihi, Nicola Gentile Fusillo, Domitilla de Martino, Steven G. Parsons, Andreas Quirrenbach, Roberto Raddi, Sabine Reffert, Melania Del Santo, Matthias R. Schreiber, Roberto Silvotti, Silvia Toonen, Eva Villaver, Mark Wyatt, Siyi Xu, Simon Portegies Zwart