Marcelo Lares | Currículum Vitae

Puerto Pirámide 63, Villa Carlos Paz – Córdoba – Argentina

+54 9351 5430898 • marcelo.lares@unc.edu.ar • Born 29/Sep/1977

Ph.D. on Astronomy

Education

Academia

- **Ph.D. in Astronomy**
  National University of Córdoba, Argentina *2003–2009*
  Supervisor: Prof. Dr. Diego García Lambas
- **National University of Córdoba**
  Licenciado degree in Astronomy, Argentina *1997–2003*
  (The Licenciado Degree comprises 32 courses including
  a research project in astronomy in a minimum of five years)
- **Instituto "El Obraje"**
  Técnico químico, Alta Gracia–Córdoba *1991–1996*
  Best score

Current position

Researcher at CONICET, Argentina and Assistant Professor at Universidad Nacional de Córdoba.

Publications

Ph.D. Thesis

• **Galaxias satélites de baja luminosidad**

2004, PhD thesis, Universidad Nacional de Córdoba

Lares, Marcelo.

Articles on indexed journals

• **Monte Carlo estimation of the probability of causal contacts between communicating civilizations**

2020, *International Journal of Astrobiology*, 19(5):393–405

M. Lares, J. G. Funes, and L. Gramajo.

• **Searching for Spiritual Signatures in SETI Research**

2019, *Theology and Science*, 17(3):373–381

José G. Funes, Lucio Florio, Marcelo Lares, and Mariano Asla.

• **Machine learning on difference image analysis: A comparison of methods for transient detection**

2019, *Astronomy and Computing, Volume 28, article id. 100284.*, 28:100284

B Sánchez, M J Domínguez R., M Lares, M Beroiz, J B Cabral, S Gurovich, C Quiñones, R Artola, C Colazo, M Schneiter, C Girardini, M Tornatore, J L Nilo Castellón, D García Lambas, and M C Díaz.

• **Properimage: Image coaddition and subtraction**

2019, page ascl:1904.025

Bruno O Sánchez, Juan B Cabral, M Beroiz, M Domínguez, and M Lares.

• **TOROS Optical follow-up of the Advanced LIGO-VIRGO O2 second observational campaign**

2019, page arXiv:1901.02960

Rodolfo Artola, Martin Beroiz, Juan Cabral, Richard Camuccio, Moises Castillo, Vahram Chavushyan, Carlos Colazo, Hector Cuevas Larenas, Darren L DePoy, Mario C Díaz, Mariano Domínguez, Deborah Dultzin, Daniela Fernández, Antonio C Ferreyra, Aldo Fonrouge, José Franco, Darío Graña, Carla Girardini, Sebastián Gurovich, Antonio Kanaan, Diego G Lambas, Marcelo Lares, Alejandro F Hinojosa, Andrea Hinojosa, Americo F Hinojosa, Omar López-Cruz, Lucas M Macri, Jennifer L Marshall, Raul Melia, Wendy Mendoza, José L Nilo Castellón, Nelson Padilla, Victor Perez, Tania Peñuela, Wahltyn Rattray, Víctor Renzi, Emmanuel Ríos-López, Amelia Ramírez Rivera, Tiago Ribeiro, Horacio Rodriguez, Bruno Sánchez, Matías Schneiter, William Schoenell, Manuel Starck, Rubén Vrech, Cecilia Quiñones, Luis Tapia, Marina Tornatore, Sergio Torres-Flores, Ervin Vilchis, and Adam Zadrożny.

• **CPF: Corral Pipeline Framework**

2018, page ascl:1808.003

Juan Cabral, Bruno Sanchez, Martin Beroiz, Mariano Dominguez, Marcelo Lares, Sebastian Gurovich, and Pablo Granitto.

• **A formal approach to compute density profiles and CMD fitting in stellar associations**

2018, In *Terceras Jornadas de Astrofísica Estelar, Proceedings of the conference held 21-24 June, 2016 in Córdoba, Argentina. Online at <A href="http://jae2016.oac.uncor.edu">http://jae2016.oac.uncor.edu/</A>, pp.138-141*

M Lares, L Gramajo, and B Sánchez.

• **VizieR Online Data Catalog: Opt. follow-up of GW170817 counterpart (Diaz+, 2017)**

2018, *VizieR On-line Data Catalog: J/ApJ/848/L29. Originally published in: 2017ApJ...848L..29D*, page J/ApJ/848/L29

M C Diaz, L M Macri, D Garcia Lambas, C Mendes de Oliveira, J L Nilo Castellon, T Ribeiro, B Sanchez, W Schoenell, L R Abramo, S Akras, J S Alcaniz, R Artola, M Beroiz, S Bonoli, J Cabral, R Camuccio, M Castillo, V Chavushyan, P Coelho, C Colazo, M V Costa-Duarte, H Cuevas Larenas, D L Depoy, M Dominguez Romero, D Dultzin, D Fernandez, J Garcia, C Girardini, D R Goncalves, T S Goncalves, S Gurovich, Y Jimenez-Teja, A Kanaan, M Lares, R Lopes de Oliveira, O Lopez-Cruz, J L Marshall, R Melia, A Molino, N Padilla, T Penuela, V M Placco, C Quinones, A Ramirez Rivera, V Renzi, L Riguccini, E Rios-Lopez, H Rodriguez, L Sampedro, M Schneiter, L Sodre, M Starck, S Torres-Flores, M Tornatore, and A Zadrozny.

• **Observations of the First Electromagnetic Counterpart to a Gravitational-wave Source by the TOROS Collaboration**

2017, *The Astrophysical Journal Letters, Volume 848, Issue 2, article id. L29, 5 pp. (2017).*, 848:L29

M C Díaz, L M Macri, D Garcia Lambas, C Mendes de Oliveira, J L Nilo Castellón, T Ribeiro, B Sánchez, W Schoenell, L R Abramo, S Akras, J S Alcaniz, R Artola, M Beroiz, S Bonoli, J Cabral, R Camuccio, M Castillo, V Chavushyan, P Coelho, C Colazo, M V Costa-Duarte, H Cuevas Larenas, D L DePoy, M Domínguez Romero, D Dultzin, D Fernández, J García, C Girardini, D R Gonçalves, T S Gonçalves, S Gurovich, Y Jiménez-Teja, A Kanaan, M Lares, R Lopes de Oliveira, O López-Cruz, J L Marshall, R Melia, A Molino, N Padilla, T Peñuela, V M Placco, C Quiñones, A Ramírez Rivera, V Renzi, L Riguccini, E Ríos-López, H Rodriguez, L Sampedro, M Schneiter, L Sodré, M Starck, S Torres-Flores, M Tornatore, and A Zadrożny.

• **Voids and superstructures: correlations and induced large-scale velocity flows**

2017, *Monthly Notices of the Royal Astronomical Society, Volume 470, Issue 1, p.85-94*, 470:85–94

Marcelo Lares, Heliana E Luparello, Victoria Maldonado, Andrés N Ruiz, Dante J Paz, Laura Ceccarelli, and Diego Garcia Lambas.

• **Corral framework: Trustworthy and fully functional data intensive parallel astronomical pipelines**

2017, *Astronomy and Computing, Volume 20, p. 140-154.*, 20:140–154

J B Cabral, B Sánchez, M Beroiz, M Domínguez, M Lares, S Gurovich, and P Granitto.

• **The sparkling Universe: clustering of voids and void clumps**

2017, *Monthly Notices of the Royal Astronomical Society, Volume 468, Issue 4, p.4822-4830*, 468:4822–4830

Marcelo Lares, Andrés N Ruiz, Heliana E Luparello, Laura Ceccarelli, Diego Garcia Lambas, and Dante J Paz.

• **The sparkling Universe: A scenario for cosmic void motions**

2016, *Monthly Notices of the Royal Astronomical Society*, 461(4):4013–4021

Laura Ceccarelli, Andrés N. Ruiz, Marcelo Lares, Dante J. Paz, Victoria E. Maldonado, Heliana E. Luparello, and Diego Garcia Lambas.

• **Void Dynamics**

2016, In *The Zeldovich Universe: Genesis and Growth of the Cosmic Web, Proceedings of the International Astronomical Union, IAU Symposium, Volume 308, pp. 530-537*

Nelson D Padilla, Dante Paz, Marcelo Lares, Laura Ceccarelli, Diego Garcí A Lambas, Yan-Chuan Cai, and Baojiu Li.

• **GW150914: First Search for the Electromagnetic Counterpart of a Gravitational-wave Event by the TOROS Collaboration**

2016, *The Astrophysical Journal Letters, Volume 828, Issue 2, article id. L16, 6 pp. (2016).*, 828:L16

Mario C Díaz, Martín Beroiz, Tania Peñuela, Lucas M Macri, Ryan J Oelkers, Wenlong Yuan, Diego García Lambas, Juan Cabral, Carlos Colazo, Mariano Domínguez, Bruno Sánchez, Sebastián Gurovich, Marcelo Lares, Matías Schneiter, Darío Graña, Víctor Renzi, Horacio Rodriguez, Manuel Starck, Rubén Vrech, Rodolfo Artola, Antonio Chiavassa Ferreyra, Carla Girardini, Cecilia Quiñones, Luis Tapia, Marina Tornatore, Jennifer L Marshall, Darren L DePoy, Marica Branchesi, Enzo Brocato, Nelson Padilla, Nicolas A Pereyra, Soma Mukherjee, Matthew Benacquista, and Joey Key.

• **VizieR Online Data Catalog: LMC star clusters catalog (Palma+, 2016)**

2016, *VizieR On-line Data Catalog: J/A+A/586/A41. Originally published in: 2016A&A...586A..41P*, pages J/A+A/586/A41

T Palma, L V Gramajo, J J Claria, M Lares, D Geisler, and A V Ahumada.

• **Results of optical follow-up observations of advanced LIGO triggers from O1 in the southern hemisphere**

2016, In *APS April Meeting 2016, abstract id. R14.005*

Martin Beroiz, Carlos Colazo, Mario Diaz, Mariano Dominguez, Diego Garcia Lambas, Sebastian Gurovich, Marcelo Lares, Lucas Macri, Tania Penuela, Horacio Rodriguez, Bruno Sanchez, and Toros Collaboration.

• **Catalogue of Large Magellanic Cloud star clusters observed in the Washington photometric system**

2016, *Astronomy & Astrophysics, Volume 586, id.A41, 17 pp.*, 586:A41

T Palma, L V Gramajo, J J Clariá, M Lares, D Geisler, and A V Ahumada.

• **The sparkling Universe: the coherent motions of cosmic voids**

2016, *Monthly Notices of the Royal Astronomical Society: Letters, Volume 455, Issue 1, p.L99-L103*, 455:L99–L103

Diego García Lambas, Marcelo Lares, Laura Ceccarelli, Andrés N Ruiz, Dante J Paz, Victoria E Maldonado, and Heliana E Luparello.

• **Brightest group galaxies and the large-scale environment**

2015, *Monthly Notices of the Royal Astronomical Society, Volume 448, Issue 2, p.1483-1493*, 448:1483–1493

H E Luparello, M Lares, D Paz, C Y Yaryura, D G Lambas, and N Padilla.

• **Clues on void evolution - III. Structure and dynamics in void shells**

2015, *Monthly Notices of the Royal Astronomical Society, Volume 448, Issue 2, p.1471-1482*, 448:1471–1482

Andrés N Ruiz, Dante J Paz, Marcelo Lares, Heliana E Luparello, Laura Ceccarelli, and Diego García Lambas.

• **Void Dynamics**

2014, page arXiv:1410.8186

Nelson Padilla, Dante Paz, Marcelo Lares, Laura Ceccarelli, Diego Garcia Lambas, Yan-Chuan Cai, and Baojiu Li.

• **Clues on void evolution-II. Measuring density and velocity profiles on SDSS galaxy redshift space distortions**

2013, *Monthly Notices of the Royal Astronomical Society, Volume 436, Issue 4, p.3480-3491*, 436:3480–3491

Dante Paz, Marcelo Lares, Laura Ceccarelli, Nelson Padilla, and Diego García Lambas.

• **Clues on void evolution - I. Large-scale galaxy distributions around voids**

2013, *Monthly Notices of the Royal Astronomical Society, Volume 434, Issue 2, p.1435-1442*, 434:1435–1442

L Ceccarelli, D Paz, M Lares, N Padilla, and D García Lambas.

• **Effects of superstructure environment on galaxy groups**

2013, *Monthly Notices of the Royal Astronomical Society, Volume 432, Issue 2, p.1367-1374*, 432:1367–1374

H E Luparello, M Lares, C Y Yaryura, D Paz, N Padilla, and D G Lambas.

• **The influence of superstructures on bright galaxy environments: clustering properties**

2012, *Monthly Notices of the Royal Astronomical Society, Volume 426, Issue 1, pp. 708-718.*, 426:708–718

C Y Yaryura, M Lares, H E Luparello, D J Paz, D G Lambas, N Padilla, and M A Sgró.

• **Properties of Satellite Galaxies in the SDSS Photometric Survey: Luminosities, Colors, and Projected Number Density Profiles**

2011, *The Astronomical Journal, Volume 142, Issue 1, article id. 13, 13 pp. (2011).*, 142:13

M Lares, D G Lambas, and M J Domínguez.

• **Future virialized structures: an analysis of superstructures in the SDSS-DR7**

2011, *Monthly Notices of the Royal Astronomical Society, Volume 415, Issue 1, pp. 964-976.*, 415:964–976

H Luparello, M Lares, D G Lambas, and N Padilla.

• **The faint-end of the galaxy luminosity function in galaxy systems**

2006, In *XI IAU Regional Latin American Meeting of Astronomy (Eds. L. Infante & M. Rubio) Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias) Vol. 26, pp. 194*

M Lares and D G Lambas.

• **The faint-end of the galaxy luminosity function in groups**

2006, *Astronomy and Astrophysics, Volume 445, Issue 1, January I 2006, pp.51-58*, 445:51–58

R E González, M Lares, D G Lambas, and C Valotto.

• **Dynamical segregation of galaxies into groups and clusters**

2004, *Monthly Notices of the Royal Astronomical Society, Volume 352, Issue 2, pp. 501-507.*, 352:501–507

M Lares, D G Lambas, and A G Sánchez.

Articles under review

• **GriSPy: A Python package for Fixed-Radius Nearest Neighbors Search**

2019, *arXiv e-prints*, page arXiv:1912.09585

Martin Chalela, Emanuel Sillero, Luis Pereyra, Mario Alejandro García, **Cabral, Juan B**., Marcelo Lares, and Manuel Merchán.

→ `Enviada para revisión a "Astronomy and Computing". En este trabajo ocupe el rol de director de los cuatro primeros autores, en su primer publicación de una herramienta de computo científico para astronomía.`

Articles with large collaborations

• **TOROS optical follow-up of the advanced LIGO-VIRGO O2 second observational campaign**

2020, *Monthly Notices of the Royal Astronomical Society*, 493(2):2207–2214

Rodolfo Artola, Martin Beroiz, Juan Cabral, Richard Camuccio, Moises Castillo, Vahram Chavushyan, and et al.

→ `Member of the TOROS project`

• **Multi-messenger observations of a binary neutron star merger**

2017, *The Astrophysical Journal*, 848(2):L12

B. P. Abbott, R. Abbott, T. D. Abbott, and et al.

→ `Member of the TOROS project`

• **Observations of the first electromagnetic counterpart to a gravitational-wave source by the TOROS collaboration**

2017, *The Astrophysical Journal*, 848(2):L29

M. C. Díaz, L. M. Macri, D. Garcia Lambas, C. Mendes de Oliveira, J. L. Nilo Castellón, T. Ribeiro, B. Sánchez, W. Schoenell, L. R. Abramo, S. Akras, J. S. Alcaniz, R. Artola, M. Beroiz, S. Bonoli, J. Cabral, R. Camuccio, M. Castillo, V. Chavushyan, P. Coelho, C. Colazo, M. V. Costa-Duarte, H. Cuevas Larenas, D. L. DePoy, M. Domínguez Romero, D. Dultzin, D. Fernández, J. García, C. Girardini, D. R. Gonçalves, T. S. Gonçalves, S. Gurovich, Y. Jiménez-Teja, A. Kanaan, M. Lares, R. Lopes de Oliveira, O. López-Cruz, J. L. Marshall, R. Melia, A. Molino, N. Padilla, T. Peñuela, V. M. Placco, C. Quiñones, A. Ramírez Rivera, V. Renzi, L. Riguccini, E. Ríos-López, H. Rodriguez, L. Sampedro, M. Schneiter, L. Sodré, M. Starck, S. Torres-Flores, M. Tornatore, and A. Zadrożny.

→ `Member of the TOROS project`

• LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914

2016, *The Astrophysical Journal Leters*, 826(1):L13

B. P. Abbott, R. Abbott, T. D. Abbott, M. R. Abernathy, F. Acernese, K. Ackley, C. Adams, T. Adams, P. Addesso, R. X. Adhikari, V. B. Adya, C. Affeldt, M. Agathos, K. Agatsuma, N. Aggarwal, O. D. Aguiar, L. Aiello, A. Ain, P. Ajith, B. Allen, A. Allocca, P. A. Altin, S. B. Anderson, W. G. Anderson, K. Arai, M. C. Araya, C. C. Arceneaux, J. S. Areeda, N. Arnaud, K. G. Arun, . . . , M. Beroiz, T. Peñuela, L. M. Macri, R. J. Oelkers, D. G. Lambas, R. Vrech, J. Cabral, C. Colazo, M. Dominguez, B. Sanchez, S. Gurovich, M. Lares, J. L. Marshall, D. L. DePoy, N. Padilla, N. A. Pereyra, M. Benacquista, N. R. Tanvir, K. Wiersema, A. J. Levan, D. Steeghs, J. Hjorth, J. P. U. Fynbo, D. Malesani, B. Milvang-Jensen, D. Watson, M. Irwin, C. G. Fernandez, R. G. McMahon, M. Banerji, E. Gonzalez-Solares, S. Schulze, A. de Ugarte Postigo, C. C. Thoene, Z. Cano, S. Rosswog, and other.

→ `Member of the TOROS project`

• Supplement: "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" (2016, ApJL, 826, L13)

2016, *The Astrophysical Journal Supplement Series*, 225(1):8

B. P. Abbott, R. Abbott, T. D. Abbott, and et al.

→ `Member of the TOROS project`

Refereed articles on Conferences

• Orientation of galactic disks around Illustris voids

2018, *Boletín de la Asociación Argentina de Astronomía, vol. 60, p.130-132*, 60:130–132

F Dávila Kurbán, M Lares, and D Garcia Lambas.

• Implicaciones antropológicas y teológicas de la escatología científica

2017, *Boletín de la Asociación Argentina de Astronomía, vol. 59, p. 206-208*, 59:206–208

J Funes, M Lares, and M De los Rios.

• OTHER: A multidisciplinary approach to the search for other inhabited worlds

2017, *Boletín de la Asociación Argentina de Astronomía, vol. 59, p. 203-205*, 59:203–205

J Funes, M Lares, M De los Rios, M Martiarena, and A V Ahumada.

• Cosmic void clumps

2017, *Boletín de la Asociación Argentina de Astronomía, vol. 59, p. 115-117*, 59:115–117

M Lares, H E Luparello, D Garcia Lambas, A N Ruiz, L Ceccarelli, and D Paz.

• Tratamiento formal de imágenes astronómicas con PSF espacialmente variable

2017, *Boletín de la Asociación Argentina de Astronomía, vol. 59, p. 209-212*, 59:209–212

B O Sánchez, M J Domínguez, and M Lares.

• The brightest group galaxies and their large-scale environment

2015, *Boletín de la Asociación Argentina de Astronomía, vol.57, p.67-69*, 57:67–69

H E Luparello, M Lares, D Paz, C Y Yaryura, D G Lambas, and N D Padilla.

• Detección automática de eventos transitorios en galaxias

2015, *Boletín de la Asociación Argentina de Astronomía, vol.57, p.172-174*, 57:172–174

B O Sánchez, M Lares, and M J Domínguez.

• **Estadísticas de visitas en portales web institucionales como indicador de respuesta del público a propuestas de divulgación**

2012, *Boletín de la Asociación Argentina de Astronomía, vol.55, p.505-509*, 55:505–509

M Lares.

• **Percepción del tamaño de la Luna**

2012, *Boletín de la Asociación Argentina de Astronomía, vol.55, p.509-513*, 55:509–513

M Lares.

• **Superestructuras y las propiedades del clustering de galaxias brillantes**

2012, *Boletín de la Asociación Argentina de Astronomía, vol.55, p.373-377*, 55:373–377

C Y Yaryura, M Lares, H E Luparello, D J Paz, D G Lambas, N Padilla, and M A Sgró.

• **Superestructuras en el universo: caracterización e identificación en el catálgo SDSS-DR7**

2011, *Boletín de la Asociación Argentina de Astronomía, vol.54, p.321-324*, 54:321–324

H E Luparello, M Lares, D García Lambas, and N Padilla.

• **Correlaciones entre sistemas del Universo Local y el Fondo de Radiación Cósmica**

2011, *Boletín de la Asociación Argentina de Astronomía, vol.54, p.361-364*, 54:361–364

M P Piccirilli, H E Luparello, D García Lambas, H Vucetich, M Lares, and M J L Domínguez Romero.

• **Propiedades estadísticas de galaxias en las futuras estructuras más grandes del universo**

2010, *Boletín de la Asociación Argentina de Astronomía, vol.53, p.47-50*, 53:47–50

M Lares, Y Yaryura, and D García Lambas.

• **Propiedades generales de radiogalaxias y galaxias centrales de cúmulos con el SDSS espectroscópico**

2009, *Boletín de la Asociación Argentina de Astronomía, vol.52, p.193-196*, 52:193–196

S Gurovich, C G Bornancini, M Lares, A L O'Mill, D García Lambas, and M Dione.

• **Propiedades estadísticas de galaxias de baja luminosidad en cúmulos: distribuciones de luminosidades y colores**

2009, *Boletín de la Asociación Argentina de Astronomía, vol.52, p.201-204*, 52:201–204

M Lares and D García Lambas.

• **La función de luminosidad de supercúmulos de galaxias**

2009, *Boletín de la Asociación Argentina de Astronomía, vol.52, p.205-208*, 52:205–208

H Luparello, M Lares, and D García Lambas.

• **Determinación estadística de propiedades de la subestructura de materia: Número de satélites.**

2008, *Boletín de la Asociación Argentina de Astronomía, vol.51, p.267-270*, 51:267–270

M Lares and D García Lambas.

• **Sistemas de galaxias luminosas rojas: Supercúmulos a partir de sobredensidades de galaxias en el catálogo fotométrico del SDSS.**

2008, *Boletín de la Asociación Argentina de Astronomía, vol.51, p.275-278*, 51:275–278

H Luparello, M Lares, and D García Lambas.

• **Detailed description of masks in small areas of photometric galaxy catalogs**

2007, *Boletín de la Asociación Argentina de Astronomía, vol.50, p.255-258*, 50:255–258

M Lares.

• **Galaxy number density profile around bright isolated galaxies**

2006, *Boletín de la Asociación Argentina de Astronomía, vol.49, p.303-306*, 49:303–306

M Lares and D García Lambas.

• **Statistical properties of satellite galaxies**

2004, *Boletín de la Asociación Argentina de Astronomía, vol.47, p.365-368*, 47:365–368

M Lares and D García Lambas.

• **Dinámica de galaxias en grupos**

2003, *Boletín de la Asociación Argentina de Astronomía, vol.46, p.107*, 46:107

M Lares, D García Lambas, A G Sánchez, and M E Merchán.

• **Estudio Fotométrico del Centauro (2060) Chiron**

2000, *Boletín de la Asociacióon Argentina de Astronomía, vol. 44, p. 22*, 44:22

A A Alvarez-Candal, R Duffard, M Lares, M Leiva, M C Pivato, and A G Sánchez.

An updated list of my publications can be found in my ORCID profile:
https://orcid.org/0000-0001-8180-5780

Technical developments

• **AEGIS: Academic Exam Generator for Interchange and Shuffe**

2020, page https://github.com/mlares/aegis

Lares, Marcelo.

• **HEARSAY: Simulations for the probability of alien contact**

2020, page ascl:2006.001

Lares, Marcelo, José Funes, Luciana Gramajo, and Juan Cabral.

→ `Reviewed and indexed by Astrophysics Source Code Library https://ascl.net/`

• **GriSPy: Fixed-radius nearest neighbors grid search in Python**

2019, page ascl:1912.013

Martín Chalela, Emanuel Sillero, Luis Pereyra, Mario A. Garcia, Juan B. Cabral, **Lares, Marcelo**, and Manuel Merchán.

→ `Reviewed and indexed by Astrophysics Source Code Library https://ascl.net/`

• **Properimage: Image coaddition and subtraction**

2019, page ascl:1904.025

Bruno O. Sánchez, Juan B. Cabral, M. Beroiz, M. Domínguez, and **Lares, M.**

→ `Reviewed and indexed by Astrophysics Source Code Library https://ascl.net/`

• **CPF: Corral Pipeline Framework**

2018, page ascl:1808.003

Juan Cabral, Bruno Sanchez, Martin Beroiz, Mariano Dominguez, **Lares, Marcelo**, Sebastian Gurovich, and Pablo Granitto.

→ `Reviewed and indexed by Astrophysics Source Code Library https://ascl.net/`

• **VizieR Online Data Catalog: Opt. follow-up of GW170817 counterpart (Diaz+, 2017)**

2018, *VizieR Online Data Catalog*, page J/ApJ/848/L29

M. C. Diaz, L. M. Macri, D. Garcia Lambas, C. Mendes de Oliveira, J. L. Nilo Castellon, T. Ribeiro, B. Sanchez, W. Schoenell, L. R. Abramo, S. Akras, J. S. Alcaniz, R. Artola, M. Beroiz, S. Bonoli, J. Cabral, R. Camuccio, M. Castillo, V. Chavushyan, P. Coelho, C. Colazo, M. V. Costa-Duarte, H. Cuevas Larenas, D. L. Depoy, M. Dominguez Romero, D. Dultzin, D. Fernandez, J. Garcia, C. Girardini, D. R. Goncalves, T. S. Goncalves, S. Gurovich, Y. Jimenez-Teja, A. Kanaan, **Lares, M.**, R. Lopes de Oliveira, O. Lopez-Cruz, J. L. Marshall, R. Melia, A. Molino, N. Padilla, T. Penuela, V. M. Placco, C. Quinones, A. Ramirez Rivera, V. Renzi, L. Riguccini, E. Rios-Lopez, H. Rodriguez, L. Sampedro, M. Schneiter, L. Sodre, M. Starck, S. Torres-Flores, M. Tornatore, and A. Zadrozny.

→ `Member of the TOROS project`

An updated sample of software projects can be found in my GitHub profile:
https://github.com/mlares

Teaching Activities

Teaching positions

- **OAC** — **FAMAF-UNC**
  Adjoint Professor, Córdoba — *2019 – today*
  Argentina

- **OAC** — **FAMAF-UNC**
  Assistant Professor, Córdoba — *2019 – Actualmente*
  Argentina

Mentoring

Students

- **Dávila Kurbán, Federico** — **Universidad Nacional de Córdoba – Argentina**
  Ph.D. program, Facultad de Matemática, Astronomía y Física — *2017–2019*
  The internal structure of cosmic voids

- **Daza Perilla, Vanessa** — **Universidad Nacional de Córdoba – Argentina**
  Ph.D. program, Facultad de Matemática, Astronomía y Física — *2017–2019*
  Machine learning detection of transient and periodic objects

- **Luparello, Heliana** — **Universidad Nacional de Córdoba – Argentina**
  graduate program, Facultad de Matemática, Astronomía y Física — *2017–2019*
  The largest structures in the Universe

Evaluation

Peer-review

- *Montly Notices of the Royal Astronomical Society, United Kingdom* — *2019-*

- *Astronomy and Astrophysics, France* — *2019-*

Scientific organizing Comitees

- **FoF2018** — **Córdoba**
  Friends of friends meeting — *2018*
  https://www.fof.oac.unc.ar/

Grants

Projects

- **Soporte a la Decisión ante Covid-19** — **UNDEFI**
  Codirección de Proyecto., (Aprobado por la Resolución Rectoral UNDEF 114/2020). — *05/20–04/21*
  Monto del financiamiento: $150.000
  Ejecutado por CRUC-IUA - Universidad de la Defensa Nacional
- **Estudios estadisticos y dinámicos de la estructura en gran escala del universo**
  PI: Diego Garcia Lambas, PICT-2015-3098 — *2017–2019*
  AR$ 630000
  ANPCyT
- **Astronomía Computacional**
  PI: Diego Garcia Lambas — *2017–2021*
  AR$ 5000000
  CONICET
- **Astronomía Computacional**
  PI: Diego Garcia Lambas — *2017–2021*
  AR$ 5000000
  CONICET
- **Dinámica de las grandes estructuras en el Universo**
  PI: Marcelo Lares — *2016–2017*
  AR$ 17000
  UNC-Secyt
- **Formación de estructuras en gran escala del universo**
  PI: Dante Paz, co-PI: Marcelo Lares — *2016–2017*
  AR$ 26280
  UNC-Secyt Program
- **Estudios sobre el sector oscuro**
  PI: Mariano Domínguez, co-PI: Marcelo Lares, 11220150100797CO — *2015–2017*
  AR$ 150000
  UNC-Secyt Program
- **Estructura en gran escala del universo y su evolución**
  PI: Diego García Lambas — *2014–2015*
  AR$ 24000
- **Formacion de estructuras en el Universo**
  PI: Mario Abadi — *2012–2014*
  AR$ 9360
  UNC–Secyt program
- **Formación de estructuras y evolución de galaxias a partir de estudios de galaxias satélites**
  PI: Marcelo Lares, SeCyT-UNC 30820110100330 — *2012–2013*
  AR$ 3500
  UNC–Secyt
- **Formación de estructuras en el universo**
  PI: María Victoria Alonso, PIP 112-201101-01014 — *2012–2014*
  AR$ 215000
  CONICET
- **Evolucion de la estructura en el universo**
  PI: Diego García Lambas, PICT-2010-2639 — *2010–2013*
  AR$ 291200

ANPCyT–BID 2437/OC-AR

- **Evolución de la estructura en el universo** *2009–2011*
  PI: Diego García Lambas
  AR$ 300000

- **Evolución de la estructura en el universo** *2008–2011*
  PI: Diego García Lambas, PIP 112-200801-00706
  AR$ 216000
  CONICET–PIP

- **Evolución de la Estructura en el Universo** *2009–2011*
  PI: Diego García Lambas, PID 2008
  AR$ 30000
  ANCPCyT

- **Formacion y evolucion de galaxias y estructuras en el universo** *2006–2008*
  PI: Diego García Lambas, PIP 5420 - 2005/2006
  AR$ 210000
  CONICET–PIP

- **Evolución de la estructura del Universo** *2006–2008*
  PI: Diego García Lambas, PID 2006
  AR$ 10000
  ANPCyT

- **Propiedades de la Distribución de Satélites en Galaxias Simuladas** *2005–2006*
  PI: Mario Abadi
  AR$ 10000
  UNC–Secyt

- **LENAC. Latinamerican European Network for Astrophysics and Cosmology** *2004–2009*
  PI: Carlos Frenk
  EUR 950000
  LENAC–EU

Organization of Meetings

- **FoF Meeting 2018** **ICTP**
  PI: Diego Garcia Lambas, Conferencia anual del IATE-OAC-CONICET. *04/2018*
  EUR 2000 ICTP

- **FoF Meeting 2018** **AAA**
  PI: Marcelo Lares *04/2018*
  ARS 37500 AAA

- **FoF Meeting 2018** **ANPCyT**
  PI: Diego Garcia Lambas *04/2018*
  ARS 40000 ANPCyT

- **FoF Meeting 2018** **UNC–Secyt**
  PI: Marcelo Lares *04/2018*
  ARS 7000 UNC–Secyt

Outreach

Science Outreach

- **Como es la tecnología con la que se analizan los escenarios post-cuarentena.** — **Periferia**
  Press note — *29/04/2020*
  Argentina
- **Investigadores del OAC proponen herramientas para entender el coronavirus.** — **Prensa UNC**
  Press Release, Córdoba — *11/04/2020*
  Argentina
- **Arcovid, el soporte que permite entender el Coronavirus** — **El Show del Lagarto. EldoceTV**
  TV interview, Córdoba — *08/04/2020*
  Argentina
- **Comerse la curva.** — **Revista El gato y la caja.**
  Press note, Mención por Pablo A. González. — *05/04/2020*
  Argentina
- **Arcovid19: Herramientas para ayudar a entender y combatir el Coronavirus.** — **Prensa OAC**
  Press release, Córdoba — *04/04/2020*
  Argentina
- **Noche de los museos 2018** — **OAC-UNC**
  Public talk, Córdoba — *26/10/2018*
  Argentina
- **Noche de los museos 2017** — **OAC-UNC**
  Public talk, Córdoba — *01/12/2017*
  Argentina
- **TalkRadio**
  Radio interview — *9/2020*
  UK
- **Canal 10**
  interview — *9/2020*
  Argentina
- **Canal 12**
  interview — *9/2020*
  Argentina
- **Catholic news**
  mention — *9/2020*
- **Radio Nacional Mendoza**
  Interview — *9/2020*
  Argentina
- **Radio de la Universidad Nacional de Mar del Plata**
  Interview — *9/2020*
  Argentina
- **Astronomical Observatory of Córdoba** — **General public**
  Conference — *12/2018*
  Argentina
- **Astronomical Observatory of Córdoba** — **General public**
  Conference — *12/2018*
  Argentina

- **Convenios de cooperación entre la UNSa y proyectos astronómicos en Salta** — **General public**
  Conference — *12/2018*
  Argentina

Community and social services

- **Project ARCOVID19** – *https://ivco19.github.io/*

  Member of the multidisciplinary group Arcovid19, aimed at designing tools for decision support in the context of the SARS–COVID 19 pandemic. The team also worked on public outreach and participated on several seminars and meetings about the topic.

- **Industry Outreach**

  I participated in several collaborations with the industry, including two "high level technological services" certificated by the outreach office of the CONICET.

Meetings

- Name: **Astronomy Association of Argentina**
  Type: Annual Meetings
  Location:
  Dates: 2000, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2012, 2013, 2014, 2015, 2016.
  Role: Atendee, Posters and speaker.
- Name: **COSMOSUR III**
  Type: Periodic workshop
  Location: Córdoba
  Date: 2015
  Role: Invited talk
- Name: **Friends of Friends Meetings**
  Type: Periodic workshop
  Location: Córdoba, Argentina
  Date: 2012, 2013, 2014, 2015, 2016, 2017, 2018 (organizer) and 2019.
  Role: Attendee, speaker
- Name: **AAA thematic Workshops**
  Type: Workshop
  Location:
  Date: Astronomía Teórica en Argentina: Problemas y Perspectivas (2007), 2011
  Role: Attendee
- Name: **SCS PIRE Summer School on the Large Scale Structure-CMB connection**
  Type: School
  Location: Chile
  Date: 2006
  Role: Attendee
- Name: **IAG-LENAC XIII Advanced School of Astrophysics & LENAC Special Session**
  Type: School
  Location: Foz do Iguaçú, Brazil
  Date: 2006
  Role: Attendee
- Name: **11th Latin-American Regional IAU Meeting**
  Type: Periodic Meeting
  Location: Pucón, Chile
  Date: 2005
  Role: Attendee
- Name: **ESO Workshop: Groups of Galaxies in the nearby universe**
  Type: Workshop
  Location: Santiago, Chile
  Date:
  Role: Attendee
- Name: **MPA/ ESO/ MPE/ USM Joint Astronomy Conference: Open Questions in Cosmology: the first Billion years**
  Type: Conference
  Location: Garching, Germany
  Date: 2005
  Role: Attendee
- Name: **Advanced Chilean School: First Large Scale Structures in the Universe and their evolution**
  Type: School
  Location: Santiago, Chile
  Date: 2004
  Role: Attendee
- Name: **Fifth J.J. Giambiagi Winter School of Physics: Precision Cosmology**
  Type: School
  Location: Buenos Aires, Argentina
  Date: 2003
  Role: Attendee

Skills

- **Programming Languages:** Python, R, Fortran90
- **Spanish**: Native – **English**: Conversational.