

Marcelo Lares | Currículum Vitae

Puerto Pirámide 63, Villa Carlos Paz – Córdoba – Argentina

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Ph.D. on Astronomy

Education

Academia.....

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

Current position

Researcher at CONICET, Argentina and Assistant Professor at Universidad Nacional de Córdoba.
Member of the IAU, the AAA (Argentine Astronomical Association), the TOROS project and the OTHER project.

Publications

Ph.D. Thesis.....

- **Low luminosity galaxy satellites**
2004, PhD thesis, Universidad Nacional de Córdoba
Advisor: Diego Garcia Lambas.

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 Ratray, 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 Zdrożny.

- **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 <http://jae2016.oac.uncor.edu>, 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 Díaz, L M Macri, D Garcia Lambas, C Mendes de Oliveira, J L Nilo Castellon, T Ribeiro, B Sanchez, W Schoenell, L R Abramo, S Akas, 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 Zdrozny.

- **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 Akas, 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 Zdrożny.

- **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 García 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 Schneider, Darío Graña, Víctor Renzi, Horacio Rodríguez, 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, Juan B. Cabral, 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.

- **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.

- **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. Akas, 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. Schneider, L. Sodré, M. Starck, S. Torres-Flores, M. Tornatore, and A. Zdrożny.

- **Localization and broadband follow-up of the gravitational-wave transient GW150914**

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

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

- **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.

(as a member of the TOROS collaboration)

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 catálogo 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 Asociación 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>

Marcelo Lares.

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

2020, page ascl:2006.001

Marcelo Lares, 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, Marcelo Lares, 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 M. Lares.

→ 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, Marcelo Lares, 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. Akas, 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. Schneider, 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**

Adjoint Professor, Córdoba
Argentina

FAMAF-UNC
2017 – today

- **OAC** **FAMAF-UNC**
Assistant Professor, Córdoba 2007 – 2017
Argentina
- **FaMAF** **UNC**
Teaching assistant, Córdoba 2001 – 2006
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.....

- **reviewer**
Montly Notices of the Royal Astronomical Society 2020
- **reviewer**
Astronomy and Astrophysics 2004
- **reviewer**
BAAA 2017

Scientific organizing Comitees.....

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

Service

Editorial.....

- **Boletín de la Asociación Argentina de Astronomía** **AAA**
Technical Editor, Argentina 2011-2017
http://www.astronomiaargentina.org.ar/boletin_aaa

- **3rd. stellar astrophysics meeting** **AAA**
Technical Editor, Argentina 2017
<http://jae2016.oac.uncor.edu/>

Local organizing Comitees.....

- **FoF2018** **Córdoba**
Friends of friends meeting (head of the LOC) 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 estadísticos y dinámicos de la estructura en gran escala del universo** 2017–2019
PI: Diego García Lambas, PICT-2015-3098
AR\$ 630000
ANPCyT
- **Astronomía Computacional** 2017–2021
PI: Diego García Lambas
AR\$ 5000000
CONICET
- **Astronomía Computacional** 2017–2021
PI: Diego García Lambas
AR\$ 5000000
CONICET
- **Dinámica de las grandes estructuras en el Universo** 2016–2017
PI: Marcelo Lares
AR\$ 17000
UNC-Secyt
- **Formación de estructuras en gran escala del universo** 2016–2017
PI: Dante Paz, co-PI: Marcelo Lares
AR\$ 26280
UNC-Secyt Program
- **Estudios sobre el sector oscuro** 2015–2017
PI: Mariano Domínguez, co-PI: Marcelo Lares, 11220150100797CO
AR\$ 150000
UNC-Secyt Program
- **Estructura en gran escala del universo y su evolución** 2014–2015
PI: Diego García Lambas
AR\$ 24000
- **Formacion de estructuras en el Universo** 2012–2014
PI: Mario Abadi
AR\$ 9360
UNC-Secyt program

- **Formación de estructuras y evolución de galaxias a partir de estudios de galaxias satélites** 2012–2013
PI: Marcelo Lares, SeCyT-UNC 30820110100330
 AR\$ 3500
 UNC–Secyt
- **Formación de estructuras en el universo** 2012–2014
PI: María Victoria Alonso, PIP 112-201101-01014
 AR\$ 215000
 CONICET
- **Evolucion de la estructura en el universo** 2010–2013
PI: Diego García Lambas, PICT-2010-2639
 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
 ANPCyT
- **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

- PI: Marcelo Lares
- ARS 7000 UNC-Secyt

UNC-Secyt

04/2018

Outreach

Science Outreach.....

- OAC general public conferences** **Speaker**
Conference, OAC 2018, 2017, 2015
- Night of the museums** **Organizer, speaker**
Conference, organizer, OAC 2019, 2018, 2017
- ScientificAmerican** **Press**
, Want to Talk to Aliens? Try Changing the Technological Channel beyond Radio, by Adam Mann 29/04/2020
- Nature news** **Press**
Press, "The sparkling universe: coherent motions of cosmic voids" by Ron Cowen 10/2015
- OAC Exhibitions** **Organizer**
Gagarin 50 - FETTU - OAC 140 Aniversary 2010-2012
- OAC Web page** **Developer**
design, administration and maintenance, www.oac.uncor.edu 2010-2012
- BIAAA** **Editor**
Informative bulletin of the Argentine Astronomy Asociation 2008-2010
- EABA - OAC** **Visitor guide**
Summer seasons at astrophysical station, guided tours to schools 2003-2005

Media, interviews.....

- 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**
Public talk, Córdoba
Argentina **OAC-UNC**
01/12/2017
- **TalkRadio**
Radio interview
UK 9/2020
- **Canal 10**
interview
Argentina 9/2020
- **Canal 12**
interview
Argentina 9/2020
- **Catholic news**
mention 9/2020
- **Radio Nacional Mendoza**
Interview
Argentina 9/2020
- **Radio de la Universidad Nacional de Mar del Plata**
Interview
Argentina 9/2020
- **Convenios de cooperación entre la UNSa y proyectos astronómicos en Salta**
Conference
Argentina **General public**
12/2018

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, 2017 and 2020. ○
Role: Attendee, Posters and speaker.
Location: Córdoba, Argentina
Date: 2012, 2013, 2014, 2015, 2016, 2017, 2018 (organizer) and 2019.
Role: Attendee, speaker
- Name: **COSMOSUR III**
Type: Periodic workshop
Location: Córdoba
Date: 2015
Role: Invited talk
- Name: **Friends of Friends Meetings**
Type: Periodic workshop
- 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 Iguaçu, 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.
- Computational tools and technical skills: git, continuous integration (TravisCI), OpenMP, python scientific libraries, readthedocs, shell programming, Latex, HPC, parallel programming, machine learning