Curriculum vitae

Current Address

Gran Sasso Science Institute
Via Michele Iacobucci, 2, 67100 L'Aquila (Italy)
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Broad Research Interests

- Astroparticle Physics
- Galactic and extragalactic cosmic rays
- Gamma-ray and neutrino astrophysics
- Indirect detection of dark matter

ORCID: 0000-0002-6023-5253

Education

2006–2010	PhD in Astrophysics International School for Advanced Studies (SISSA), Trieste, Italy Supervisor: Prof. Andrea Ferrara Thesis: *The role of turbulence in interstellar and intergalactic environments.*
2003–2006	M. Sci. ("Laurea Magistrale") in Physics, Pisa University, Italy Supervisors: Prof. V. Cavasinni and Dr. Dario Grasso Thesis: *Diffuse neutrino emission from the Galaxy* Full marks: 110/110 *cum laude*
1999–2003	B. Sc. ("Laurea") in Physics, Pisa University, Italy Supervisor: Dr. A. Baldini Full marks: 110/110

Research Experience

12/2022 – present	**Associate Professor** **Gran Sasso Science Institute (GSSI), L'Aquila, Italy**
12/2019 – 11/2022	Assistant Professor Gran Sasso Science Institute (GSSI), L'Aquila, Italy
10/2017 – 09/2019	Marie Skłodowska-Curie Fellow Gran Sasso Science Institute (GSSI), L'Aquila, Italy
10/2015 – 09/2017	GSSI Postdoctoral Fellow Gran Sasso Science Institute (GSSI), L'Aquila, Italy
10/2011–09/2015	Post-doctoral researcher at the II. Institut für Theoretische Physik, Universität Hamburg, Germany
07–09/2011	Visiting Scientist at Scuola Normale Superiore, Pisa, Italy
01–06/2011	Visiting Scientist at National Astronomical Observatory of China (NAOC), Beijing, China

Peer-reviewed Publication Information

- 63 short-author-list publications in refereed journals (weighted impact factor > 5.0) since 2007; $> 3k$ citations; h-index of 35 (source: ADS Database)
- 4 publications in refereed journals as a member of the CTA collaboration
- 18 publications in refereed journals as a member of the Pierre Auger collaboration

Teaching Experience

Teaching Experience at GSSI

2023→2026	Graduate lectures on "Theoretical High-Energy Astroparticle Physics" (30 hours/year)
2022→2023	Graduate lectures on "Elementary Processes in Astroparticle Physics" (12 hours/year)
2021 March	Graduate lectures on "Numerical Methods in Astroparticle Physics" (10 hours)
2020 March	Graduate lectures on "Astrophysical Hydrodynamics" (10 hours)
2018 February	Graduate lectures on "Numerical Methods in Astroparticle Physics" (10 hours)
2017 May	Graduate lectures on "Indirect Dark Matter searches" (10 hours)

Teaching Experience at Hamburg University

2014/15 Winter Sem.	Teaching Assistant for "General Theory of Relativity" (Lecturer: Prof. G. Sigl)
2013/14 Summer Sem.	Teaching Assistant for "Cosmology" (Lecturer: Prof. M. Brüggen)
2013/14 Winter Sem.	Teaching Assistant for "Thermodynamics and Statistical mechanics" (Lecturer: Prof. G. Moortgat-Pick)
2012/13 Summer Sem.	Teaching Assistant for "Theoretical Astrophysics and Cosmology" (Lecturers: Prof. W. Buchmüller and Prof. G. Sigl)
2012/13 Winter Sem.	Teaching Assistant for "General Theory of Relativity" (Lecturer: Prof. G. Sigl)
2011/12 Summer Sem.	Teaching Assistant for "Introduction to General Relativity" (Lecturer: Prof. R. Banerjee)

Additional Teaching Experience

2025 November	Undergraduate lectures on "Cosmic Ray Transport in turbulent magnetic fields" at University of L'Aquila - 4 hours
2025 October	Graduate lectures on "Galactic Cosmic Rays" at DRAGON School, Instituto de Física Teórica in Madrid
2024 August	Graduate lectures on "Galactic Cosmic Ray Theory" at International School of Cosmic Ray Astrophysics 23rd Course - 3 hours [lecture slides]
2024 August	Graduate lectures on "Galactic Cosmic Ray Theory" at International School on Non-equilibrium Phenomena 6th Course - 3 hours [lecture slides]
2023 May	Undergraduate lectures on "Cosmic-ray Transport in the Interstellar Medium" at University of Bologna - 2 hours [lecture slides]
2022 June	Graduate lectures on "Phenomenological Models of Cosmic Ray Transport in Galaxies" at the International School of Physics Enrico Fermi, Course 208 - 3 hours [lecture slides]
2017 February	Undergraduate lectures on "Cosmic Rays Physics" at Scuola Normale Superiore (Pisa) - 8 hours
2014 September	Graduate lectures on "Radiative Processes in the High-Energy Sky" at the CASPAR 2014 PhD School [website]

Supervision

2026 June	PhD thesis advisor for Alessandro Cermenati, *Self Confinement of Ultra-High Energy Cosmic Rays*, GSSI Astroparticle Physics PhD Programme, XXXVII cycle [defence]
2025 October	Master's thesis co-supervisor for Allegra Firinu, *Propagation of Ultra High Energy Cosmic Rays in Cosmic Magnetic Fields*, Università di Bologna, Astrophysics and Cosmology [LM-DM270] (supervisor: Prof. Franco Vazza) [thesis]
2022 December	PhD thesis co-advisor for Benedikt Schroer, *Multiscale Cosmic-Ray Transport and Non-linear Feedback*, GSSI Astroparticle Physics PhD Programme, XXXIV cycle (co-advisor: Prof. Pasquale Blasi) [defence]

Grants

- 2025 Collaboration Fellowship at the TIANFU Cosmic Ray Research Center in Chengdu funded by CAS PIFI Grant.
- 2022 National PI in the MIUR/PRO-3 Grant "High-energy processes in the Dark Ages" (125 kEuro)
- 2018–2021 Co-participation in the ASI/INAF Grant n. 2017-14-H.O. (first call 50 kEuro + second call 70 kEuro)
- 2017 Marie Skłodowska-Curie Fellow Grant (180 kEuro) funded by the European Union.
- 2011 Collaboration Fellowship at the National Astronomical Observatory of China (NAOC) in Beijing funded by the Chinese Academy of Science (CAS).

Supplementary Experiences and Responsibilities

- Co-director of GGI PhD School "Theoretical Aspects of Astroparticle Physics, Cosmology and Gravitation" [website] (2025-now)
- Grant Referee for the Marsden Fund Council (2024-now)

- Science Communication Prize awarded by the Italian Physical Society (2022) [website]
- Member of the EUCAPT Virtual Colloquia Committee (2023-now)
- Member of the GSSI Astroparticle Colloquia Committee (2020-now)
- Member of the AUGER collaboration in the L'Aquila group (2022-now)
- Grant Referee for Agence nationale de la recherche (ANR) (2021-now)
- Grant Referee for European Commission (Marie Skłodowska-Curie Actions) (2021-now)
- Grant Referee for Deutsche Forschungsgemeinschaft (DFG) (2018-now)
- Member of the CTA collaboration in the L'Aquila group (2015-2022)
- Elected Member of the German Helmholtz-Allianz Astroparticle Physics (HAP) Member Board (2012-2015)
- Manuscript Referee for: Astronomy & Astrophysics, The Astrophysical Journal, Astroparticle Physics, Journal of Cosmology and Astroparticle Physics, Monthly Notices of the Royal Astronomical Society, Physical Review D, Physical Review Letters (2011-now)
- Student Representative in the Administrative Council of SISSA (2009-2010)
- Member of the IAPS (International Association of Physics Students) Executive Committee (2005-2006)
- Member of the ANTARES collaboration in the Pisa group (2005-2006)
- Member of the Italian Physical Society (2002-now)
- Member of the Italian Astronomical Society (1999-now)

Organisation of Conferences and Meetings

- "The Multimessenger Sky at Extreme Energies: From Sources to Fundamental Physics", Trieste, Italy, Sept 7-11, 2026. **Main organizer** [website]
- "CRIS-MAC", Sorrento, Italy, July 12-17, 2026. **Multi-messenger Astroparticle Session Convener** [website]
- "ISAPP School on High-Energy Cosmic Rays as Messengers", Università del Salento, Lecce, Italy, June 9-20, 2025. **Local Organizing Committee** [website]
- "Conference in memory of Veniamin Sergeyevich Berezinsky", GSSI L'Aquila, Italy, October 1-3, 2024. **Main Organizer** [website]
- "iDM 2024", GSSI L'Aquila, Italy, July 8-12, 2024. **Scientific Organizing Committee** [website]
- "The New Era of Multi-Messenger Astroparticle Physics", IFPU Trieste, Italy, February 19-23, 2024. **Main Organizer** [website]
- "TeV Particle Astrophysics 2023", Napoli, Italy, September 11-15, 2023. **Local Organizing Committee** [website]
- "Cosmic Ray Anisotropy Workshop CRA2023", Chicago, US, May 16-19, 2023. **International Scientific Organizing Committee** [website]
- "6th International Symposium on Ultra High Energy Cosmic Rays", GSSI L'Aquila, Italy, October 3-7, 2022. **Local Organizing Committee** [website]
- "Enrico Fermi International School of Physics - Course 208", Varenna, Italy, June 23-29, 2022. **Main Organizer and Member of the Scientific Committee** [website]
- "TeV Particle Astrophysics 2021", remote, October 25-29, 2021. **Cosmic Rays Session Convener.**
- "Cosmic Ray Anisotropy Workshop CRA2019", GSSI, L'Aquila, Italy, October 7-11, 2019. **Main Organizer and Member of the Scientific Committee** [website]
- "CV Congresso Nazionale della Società Italiana di Fisica", GSSI, L'Aquila, Italy, September 23-27, 2019. **Member of the Local Organization Committee** [website]
- "Rencontres du Vietnam on Very High Energy Phenomena in the Universe", Quy Nhon, Vietnam, August 12-18, 2018. **International Advisory Committee** [website]
- "CRATER: Cosmic RAys Transport and Energetic Radiations", GSSI, L'Aquila, Italy, May 28 - June 01, 2018. **Main Organizer and Member of the Scientific Committee** [website]
- "XVI INFN High-energy Physics Meeting", Trieste, Italy, April 19-21, 2017. **Cosmology and Astroparticle Session Convener.** [website]
- "CASPAR: Codes in AStroPArticle Research", Summer School for graduate students, Hamburg, Germany, September 10-15, 2014. **Main Organizer and Member of the Scientific Committee** [website]
- "14th ICATPP Conference", Villa Olmo, Italy, September 23-27, 2013. **International Advisory Committee.**
- "CASPAR: Cosmic-rays Acceleration, Sources and Propagation, A Rendez-vous", Hamburg, Germany, September 10-19, 2013. **Main Organizer and Member of the Scientific Committee** [website]
- Member of Local Organizing Committee for Colloquia at GSSI, 2018-now.
- Member of Local Organizing Committee for Colloquia at SISSA, 2008-2010.

Invited/Review talks

- *Academic Symposium for the 10th Anniversary of the LHAASO Collaboration*, Tianfu Cosmic Ray Research Center, Chengdu, China, October 26, 2026. **Invited speaker**, "The Cosmic-Ray Knee after LHAASO: New Clues on Sources and Transport" [website]
- *International Workshop on Cosmic Ray Direct Detection and Physics*, remote, December 17-20, 2025 [website]

- *ICRC 2025 - CRD Rapporteur Talk*, Geneva, Switzerland, July 14-24, 2025 [website]
- *2nd LHAASO Symposium*, Hong Kong, China, March 20-25, 2025 [website]
- *Cosmic Rays and Neutrinos in the Multi-Messenger Era*, Paris, France, December 9-13, 2024 [website]
- *7th International Symposium on Ultra High Energy Cosmic Rays*, Malargüe, Argentina, November 18-21, 2024 [website]
- *XSCRC 2024*, CERN, Switzerland, October 16-18, 2024 [website]
- *TeVPA 2024*, Chicago, US, August 26-30, 2024 [website]
- *13th CRIS-MAC 2024*, Trapani, Italy, June 17-21, 2024 [website]
- *Vulcano Workshop 2024 - Frontier Objects in Astrophysics and Particle Physics*, Ischia, Italy, May 26 - June 1, 2024 [website]
- *Exploring Galactic Cosmic Ray Accelerators with UHE γ-Rays*, Yerevan, Armenia, October 10-13, 2023 [website]
- *Cosmic Ray Anisotropy Workshop CRA2023*, Chicago, US, May 16-19, 2023 [website]
- *Cosmic Rays in the Multi-Messenger Era*, Paris, France, December 5-7, 2022 [website]
- *Neutrino Oscillation Workshop NOW2022*, Ostuni, Italy, September 4-11, 2022 [website]
- *27th European Cosmic Ray Symposium*, Nijmegen, The Netherlands, July 25-29, 2022 [website]
- *Solar Modulation and Dark Matter Workshop*, Trieste, Italy, November 14-19, 2021 [website]
- *The Paris Saclay AstroParticle Symposium 2021*, Orsay, France, October 18-26, 2021 [website]
- *1st Workshop on Gamma-ray Halos around Pulsars*, remote, December 1-3, 2020 [website]
- *Multimessenger HE astrophysics in the era of LHAASO*, remote, August 27-29, 2020 [website]
- *Lomonosov Conference on Elementary Particle Physics*, Moscow, Russia, August 22-28, 2019 [website]
- *New direction in Galactic Magnetism*, Newcastle, UK, June 10-14, 2019 [website]
- *IMAGINE meeting*, Nijmegen, The Netherlands, April 2-5, 2019
- *Antideuteron 2019*, Los Angeles, US, March 27-29, 2019 [website]
- *Searching for the sources of Galactic CRs*, Paris, France, December 10-14, 2018 [website]
- *Cosmology 2018*, Dubrovnik, Croatia, October 22-27 2018 [website]
- *Three elephants in the gamma-ray sky: Loop I, the Fermi bubbles, and the Galactic center excess*, Garmisch-Partenkirchen, Germany, October 21-24, 2017 [website]
- *Cosmic-ray Anisotropy Workshop 2017*, Guadalajara, Mexico, October 10-13, 2017 [website]
- *Rencontres du Vietnam: Exploring the Dark Universe*, Quy Nhon, Vietnam, July 23-29, 2017
- *Searching for the sources of Galactic cosmic rays*, Paris, France, December 7-9, 2016
- *2nd Workshop on Anisotropic Cosmic Ray Diffusion*, Montpellier, France, December 1-2, 2016
- *Vulcano Workshop 2016*, Vulcano Island, Italy, May 22-28, 2016
- *Physics of Cosmic Dawn and Reionization in the SKA Era*, Sesto, Italy, January 18-22, 2016
- *Gamma rays and Dark Matter*, Obergurgl, Austria, December 7-11, 2015 [website]
- *TeVPA2015*, Tokyo, Japan, October 26-30, 2015
- *Cosmic-ray Anisotropy Workshop 2015*, Bad Honnef, Germany, January 26-30, 2015
- *C Congresso della Societá Italiana di Fisica*, Pisa, Italy, September 22-26, 2014
- *The future of dark matter astro-particle physics: insights and perspectives*, Trieste, Italy, October 8-11, 2013
- *Multi-Messenger Astronomy of Cosmic Rays*, Beijing, China, April 11-14, 2011
- *CRF 2010*, Hamburg, Germany, November 10-12 2010 [website]

Contributed talks

- *ISVHECRI 2026*, Lecce, Italy, July 5-10, 2026 [website]

- *TeVPA 2025*, Valencia, Spain, November 3-7, 2025 [website]
- *7th Heidelberg International Symposium on High-Energy Gamma-Ray Astronomy*, Barcelona, Spain, July 4-8, 2022 [website]
- *4th CRISM conference*, Grenoble, France, June 25-29, 2018
- *CII Congresso Nazionale della Società Italiana di Fisica*, Padova, Italy, September 26-28, 2016. **Talk selected for the Special Mention: sif.it/attivita/congresso/102/comunicazioni**.
- *Cosmic Ray Origin Beyond the Standard Models*, San Vito di Cadore, Italy, September 19-23, 2016
- *TeVPA2016*, Geneva, Switzerland, September 12-16, 2016
- *Dark Matter: Astrophysical Probes, Laboratory Tests, and Theory Aspects*, Munich, Germany, February 16-27, 2015
- *SUGAR 2015*, Geneva, Switzerland, January 21-23, 2015
- *TeVPA 2014/iDM*, Amsterdam, The Netherlands, June 23-28, 2014
- *The Dark Side of the Universe*, Trieste, Italy, October 14-17, 2013
- *Anisotropic Universe*, Amsterdam, The Netherlands, September 25-27, 2013
- *DarkAttack2012*, Ascona, Switzerland, July 15-20, 2012
- *Epoch of Reionization 2012*, Strasbourg, France, April 23-27, 2012
- *SciNeGHE 2010*, Trieste, Italy, September 8-10 2010
- *GGI workshop on Dark Matter*, Florence, Italy, May 10-15 2010.
- *Cosmological Reionization*, Allahabad, India, February 16-20 2010
- *The High Redshift Universe: A Multi-Wavelength View*, Aspen, Colorado, February 7-13 2010
- *31st International Conference on Cosmic Rays (ICRC)*, Łódź, Poland, July 7-15 2009
- *TANGO in PARIS*, Paris, France, May 4-6 2009
- *Advanced School in High Performance and Grid Computing*, Trieste, Italy, November 3-14, 2008.
- *XXIVth IAP Colloquium: Far away, light in the Universe beyond redshift three*, Paris, France, July 7-11 2008
- *AGN feedback workshop*, Vulcano, Italy, May 18-22 2008.
- *Astronomy in the next decade: synergies with SKA*, Bonn, Germany, April 14-18, 2008.
- *National School of Astrophysics: Galaxy clusters - Plasma astrophysics*, Trieste (TS), Italy, October 1-6, 2006.
- *XCII Congresso Nazionale della Societá Italiana di Fisica*, Torino, Italy, September 18-23, 2006
- *4th Workshop on Science with the New Generation of High Energy Gamma-ray Experiments*, Isola d'Elba, Italy, June 20-22, 2006.
- *National School of Astrophysics: Large field observational cosmology - Scale distance*, S.Agata sui due Golfi (NA), Italy, May 8-13, 2005.
- *National School of Astrophysics; Cosmological Parameters - Extrasolar Planets*, Asiago (VI), Italy, September 5-11, 2004.

Main Seminars and Colloquia

- July 27, 2025, NAOC, Beijing, China
- December 12, 2023, Hamburg University, Hamburg, Germany
- March 27, 2023, Niels Bohr Institute, Copenhagen, Denmark
- September 19, 2022, University of Maryland, US (remote) [slides]
- June 2, 2022, Aachen University, Germany
- April 16, 2021, Princeton University, US (remote) [slides]
- November 17, 2020, APC, Paris, France (remote)
- July 7, 2020, INAF-Bologna University, Bologna, Italy (remote) [slides]

- June 20, 2019, IRAP, Toulouse, France [slides]
- November 21, 2017, DESY, Zeuthen-Berlin, Germany
- May 26, 2017, Institute for Radio-Astronomy, Bologna, Italy
- May 23, 2017, Tor Vergata University, Roma, Italy
- May 10, 2017, GRAPPA Institute, Amsterdam, The Netherlands
- February 28, 2017, INFN Section of Pisa, Pisa, Italy
- December 15, 2016, Innsbruck University, Innsbruck, Austria
- June 7, 2016, LUPM, Montpellier, France
- November 2, 2015, IPMU, Tokyo, Japan
- June 11, 2015, LAPTh, Annecy, France
- May 12, 2015, HITS, Heidelberg, Germany
- April 22, 2015, University of Oslo, Oslo, Norway
- May 14, 2014, Hamburger Sternwarte, Hamburg, Germany
- March 27, 2014, Laboratory of HEPC, Tallinn, Estonia
- March 8, 2013, Harvard-Smithsonian CfA, Cambridge, US
- March 6, 2013, NY University, New York, US
- November 5, 2012, Dark Cosmology Centre, Copenhagen, Denmark
- June 28, 2012, Max-Planck-Institut für Physik, Munich, Germany
- February 1, 2012, Göttingen University, Göttingen, Germany
- December 16, 2011, INFN Section of Pisa, Pisa, Italy
- April 26, 2011, Xiamen University, Xiamen, China
- March 10, 2011, Kavli Institute for Astronomy and Astrophysics, Beijing, China
- January 20, 2011, NAOC, Beijing, China
- September 16, 2010, DESY, Hamburg, Germany
- October 16, 2008, Arcetri Observatory, Firenze, Italy

Refereed Publications

61. **C. Evoli**, I. Vaiman, S. Petrera & F. Salamida, *Updated air-shower $X_{\rm max}$ moment parametrizations for UHECR composition with latest hadronic interaction models*, Jul 2026, Astroparticle Physics, Volume 179, article id. 103239 [arXiv, doi]

60. A. Cermenati, R. Aloisio, P. Blasi & **C. Evoli**, *Excitation of the nonresonant streaming instability around sources of ultrahigh-energy cosmic rays*, Mar 2026, Astronomy & Astrophysics, Volume 707, A19 [arXiv, doi]

59. D. Maurin, **C. Evoli**, et al., *Precision cross-sections for advancing cosmic-ray physics and other applications: a comprehensive programme for the next decade*, Mar 2026, Physics Reports, Volume 1161 [arXiv, doi]

58. R. Aloisio, A. Ambrosone & **C. Evoli**, *Constraining superheavy dark matter with the KM3-230213A neutrino event*, Feb 2026, Physical Review D, Volume 113, Issue 4, id.043024 [arXiv, doi]

57. L.M. Bourguinat, **C. Evoli**, M. Pierrick & S. Recchia, *The environment of TeV halo progenitors*, Feb 2026, Astronomy & Astrophysics, Volume 706, A140 [arXiv, doi]

56. L.E. Espinosa Castro, F.L. Villante, V. Vecchiotti, **C. Evoli** & G. Pagliaroli, *LHAASO Protons versus LHAASO Diffuse Gamma Rays: A Consistency Check*, Oct 2025, MNRAS Letters, Volume 543, Issue 1, L20 [arXiv, doi]

55. B. Schroer, **C. Evoli** & P. Blasi, *A Critical Examination of the Nested Leaky Box Model for Galactic Cosmic Ray Transport*, Jun 2025, Physical Review D, Volume 111, Issue 12, 123003 [arXiv, doi]

54. A. Ambrosone, **C. Evoli**, B. Schroer & P. Blasi, *The Origin of very high-energy diffuse γ-ray emission: The case for galactic source cocoons*, Jun 2025, Astronomy & Astrophysics, Volume 698, L18 [arXiv, doi]

53. **C. Evoli**, *Deciphering the Electron Spectral Hardening in AMS-02*, Feb 2025, Astronomy, Issue 4, 4 [arXiv, doi]

52. B. Schroer, **C. Evoli** & P. Blasi, *TeV halos and the role of pulsar wind nebulae as sources of cosmic-ray positrons*, Jun 2023, Physical Review D, Volume 107, Issue 12, article id.123020 [arXiv, doi]

51. P. De La Torre Luque, D. Gaggero, D. Grasso, O. Fornieri, K. Egberts, C. Steppa & **C. Evoli**, *Galactic diffuse gamma rays meet the PeV frontier*, Apr 2023, Astronomy & Astrophysics, Volume 672, id.A58 [arXiv, doi]

50. **C. Evoli**, E. Amato, P. Blasi & R. Aloisio, *Stochastic nature of Galactic cosmic-ray sources*, Dec 2021, Physical Review D, Volume 104, Issue 12, article id.123029 [arXiv, doi]

49. A. Dundović, **C. Evoli**, D. Gaggero & D. Grasso, *Simulating the Galactic Multi-messenger Emissions with HERMES*, Sep 2021, Astronomy & Astrophysics, Volume 653, id.A18, 16 pp. [arXiv, doi]

48. P. Carenza, **C. Evoli**, M. Giannotti, A. Mirizzi & D. Montanino, *Turbulent axion-photon conversions in the Milky-Way*, Jul 2021, Physical Review D, Volume 104, Issue 2, article id.023003 [arXiv, doi]

47. **C. Evoli**, E. Amato, P. Blasi & R. Aloisio, *Galactic factories of cosmic-ray electrons and positrons*, Apr 2021, Physical Review D, Volume 103, Issue 8, article id.083010 [arXiv, doi]

46. B. Schroer, **C. Evoli**& P. Blasi, *Intermediate mass and heavy Galactic cosmic-ray nuclei: the case of new AMS-02 measurements*, Jun 2021, Physical Review D, Volume 103, Issue 12, article id.123010 [arXiv, doi]

45. A. Dundovic, O. Pezzi, P. Blasi, **C. Evoli** & W. Matthaeus, *Novel aspects of cosmic ray diffusion in synthetic magnetic turbulence*, Nov 2020, Physical Review D, Volume 102, Issue 10, article id.103016 [arXiv, doi]

44. P. von Doetinchem, **C. Evoli**, et al., *Cosmic-ray antinuclei as messengers of new physics: status and outlook for the new decade*, Aug 2020, Journal of Cosmology and Astroparticle Physics, Issue 08, article id. 035 [arXiv, doi]

43. **C. Evoli**, P. Blasi, E. Amato & R. Aloisio, *Signature of Energy Losses on the Cosmic Ray Electron Spectrum*, Jul 2020, Physical Review Letters, Volume 125, Issue 5, article id. 051101 [arXiv, doi] (Erratum: Jun 2021, Physical Review Letters, Volume 126, Issue 24, article id. 249901)

42. **C. Evoli**, G. Morlino, P. Blasi & R. Aloisio, *AMS-02 beryllium data and its implication for cosmic ray transport*, January 2020, Physical Review D, Volume 101, Issue 2, article id.023013 [arXiv, doi]

41. C. Mascaretti, P. Blasi & **C. Evoli**, *Atmospheric neutrinos and the knee of the cosmic ray spectrum*, January 2020, Astroparticle Physics, Volume 114, p. 22-29 [arXiv, doi]

40. S. Gabici, **C. Evoli**, D. Gaggero, P. Lipari, P. Mertsch, E. Orlando, A. Strong & A. Vittino, *The origin of Galactic cosmic rays: Challenges to the standard paradigm*, Oct 2019, International Journal of Modern Physics D, Volume 28, Issue 15, id. 1930022-339 [arXiv, doi]

39. G. Galanti, F. Tavecchio, M. Roncadelli & **C. Evoli**, *Blazar VHE spectral alterations induced by photon-ALP oscillations*, Jul 2019, Monthly Notices of the Royal Astronomical Society, Volume 487, Issue 1, p.123-132 [arXiv, doi]

38. **C. Evoli**, R. Aloisio & P. Blasi, *Galactic cosmic rays after the AMS-02 observations*, May 2019, Physical Review D, Volume 99, Issue 10, id.103023 [arXiv, doi]

37. **C. Evoli**, T. Linden & G. Morlino, *Self-Generated Cosmic-Ray Confinement in TeV Halos: Implications for TeV Gamma-Ray Emission and the Positron Excess*, Sep 2018, Physical Review D, Volume 98, Issue 6, id.063017 [arXiv, doi]

36. **C. Evoli**, P. Blasi, G. Morlino & R. Aloisio, *Origin of the Cosmic Ray Galactic Halo Driven by Advected Turbulence and Self-Generated Waves*, Jul 2018, Physical Review Letters, Volume 121, Issue 2, id.021102 [arXiv, doi]

35. **C. Evoli**, D. Gaggero, A. Vittino, M. Di Mauro, D. Grasso & M.N. Mazziotta, *Cosmic-ray propagation with DRAGON2: II. Nuclear interactions with the interstellar gas*, Jul 2018, Journal of Cosmology and Astroparticle Physics, Issue 07, article id. 006 [arXiv, doi]

34. S.S. Cerri, D. Gaggero, A. Vittino, **C. Evoli**, D. Grasso, *A signature of anisotropic cosmic-ray transport in the gamma-ray sky*, Oct 2017, Journal of Cosmology and Astroparticle Physics, Issue 10, article id. 019 [arXiv, doi]

33. N. Leite, **C. Evoli**, M. D'Angelo, B. Ciardi, G. Sigl & A.Ferrara, *Do Cosmic Rays Heat the Early Intergalactic Medium?*, Jul 2017, Monthly Notices of the Royal Astronomical Society, Volume 469, Issue 1, p.416-424 [arXiv, doi]

32. **C. Evoli**, D. Gaggero, A. Vittino, G. Di Bernardo, M. Di Mauro, A. Ligorini, P. Ullio & D. Grasso, *Cosmic-ray propagation with DRAGON2: I. numerical solver and astrophysical ingredients*, Feb 2017, Journal of Cosmology and Astroparticle Physics, Issue 02, article id. 015 [arXiv, doi]

31. G. Pagliaroli, **C. Evoli** & F. Villante, *Expectations for high energy diffuse galactic neutrinos for different cosmic ray distributions*, Nov 2016, Journal of Cosmology and Astroparticle Physics, Issue 11, article id. 004 [arXiv, doi]

30. R. Yang, F. Aharonian & **C. Evoli**, *Radial distribution of the diffuse gamma-ray emissivity in the galactic disk*, Jun 2016, Physical Review D, Volume 93, Issue 12, id.123007 [arXiv, doi]

29. **C. Evoli**, M. Leo, A. Mirizzi & D. Montanino, *Reionization during the dark ages from a cosmic axion background*, May 2016, Journal of Cosmology and Astroparticle Physics, Issue 05, article id. 006 [arXiv, doi]

28. **C. Evoli**, D. Gaggero & D. Grasso, *Secondary antiprotons as a Galactic Dark Matter probe*, Dec 2015, Journal of Cosmology and Astroparticle Physics, Issue 12, article id. 039 [arXiv, doi]

27. I. Cholis, **C. Evoli**, F. Calore, T. Linden, C. Weniger & D. Hooper, *The Galactic Center GeV excess from a series of leptonic cosmic-ray outbursts*, Dec 2015, Journal of Cosmology and Astroparticle Physics, Issue 12, article id. 005 [arXiv, doi]

26. A. Payez, **C. Evoli**, T. Fischer, M. Giannotti, A. Mirizzi & A. Ringwald, *Revisiting the SN1987A limit on light axion-like particles*, Feb 2015, Journal of Cosmology and Astroparticle Physics, Issue 02, article id. 006 [arXiv, doi]

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