



Erratum: First Fermi-LAT Solar Flare Catalog (2021, ApJS, 252, 13)

M. Ajello¹, L. Baldini², D. Bastieri^{3,4}, R. Bellazzini⁵, A. Berretta⁶, E. Bissaldi^{7,8}, R. D. Blandford⁹, R. Bonino^{10,11}, P. Bruel¹², S. Buson¹³, R. A. Cameron⁹, R. Caputo¹⁴, E. Cavazzuti¹⁵, C. C. Cheung¹⁶, G. Chiaro¹⁷, D. Costantin¹⁸, S. Cutini¹⁹, F. D'Ammando²⁰, F. de Palma¹⁰, R. Desiante¹⁰, N. Di Lalla⁹, L. Di Venere^{7,8}, F. Fana Dirisa²¹, S. J. Fegan¹², Y. Fukazawa²², S. Funk²³, P. Fusco^{7,8}, F. Gargano⁸, D. Gasparrini^{24,25}, F. Giordano^{7,8}, M. Giroletti²⁰, D. Green²⁶, S. Guiriec^{14,27}, E. Hays¹⁴, J. W. Hewitt²⁸, D. Horan¹², G. Jóhannesson^{29,30}, M. Kovac'evic¹⁹, M. Kuss⁵, S. Larsson^{31,32,33}, L. Latronico¹⁰, J. Li³⁴, F. Longo^{35,36}, M. N. Lovellette¹⁶, P. Lubrano¹⁹, S. Maldera¹⁰, A. Manfreda², G. Martí-Devesa³⁷, M. N. Mazziotta⁸, I. Mereu^{6,19}, P. F. Michelson⁹, T. Mizuno³⁸, M. E. Monzani⁹, A. Morselli²⁴, I. V. Moskalenko⁹, M. Negro^{39,40}, N. Omodei⁹, M. Orienti²⁰, E. Orlando^{9,41}, D. Paneque²⁶, Z. Pei⁴, M. Persic^{35,42}, M. Pesce-Rollins⁵, V. Petrosian⁹, F. Piron⁴³, T. A. Porter⁹, G. Principe²⁰, J. L. Racusin¹⁴, S. Rainò^{7,8}, R. Rando^{3,44,45}, B. Rani^{14,46}, M. Razzano^{5,52}, S. Razzaque²¹, A. Reimer^{9,37}, O. Reimer³⁷, D. Serini⁷, C. Sgrò⁵, E. J. Siskind⁴⁷, G. Spandre⁵, P. Spinelli^{7,8}, D. Tak^{14,48}, E. Troja^{14,49}, J. Valverde¹², K. Wood^{50,53}, and G. Zaharijas^{41,51}

¹ Department of Physics and Astronomy, Clemson University, Kinard Lab of Physics, Clemson, SC 29634-0978, USA

² Università di Pisa and Istituto Nazionale di Fisica Nucleare, Sezione di Pisa, I-56127 Pisa, Italy

³ Istituto Nazionale di Fisica Nucleare, Sezione di Padova, I-35131 Padova, Italy

⁴ Dipartimento di Fisica e Astronomia "G. Galilei," Università di Padova, I-35131 Padova, Italy

⁵ Istituto Nazionale di Fisica Nucleare, Sezione di Pisa, I-56127 Pisa, Italy; melissa.pesce.rollins@pi.infn.it

⁶ Dipartimento di Fisica, Università degli Studi di Perugia, I-06123 Perugia, Italy

⁷ Dipartimento di Fisica "M. Merlin" dell'Università e del Politecnico di Bari, via Amendola 173, I-70126 Bari, Italy

⁸ Istituto Nazionale di Fisica Nucleare, Sezione di Bari, I-70126 Bari, Italy

⁹ W. W. Hansen Experimental Physics Laboratory, Kavli Institute for Particle Astrophysics and Cosmology, Department of Physics and SLAC National Accelerator Laboratory, Stanford University, Stanford, CA 94305, USA; nicola.omodei@stanford.edu, vahep@stanford.edu

¹⁰ Istituto Nazionale di Fisica Nucleare, Sezione di Torino, I-10125 Torino, Italy

¹¹ Dipartimento di Fisica, Università degli Studi di Torino, I-10125 Torino, Italy

¹² Laboratoire Leprince-Ringuet, École polytechnique, CNRS/IN2P3, F-91128 Palaiseau, France

¹³ Institut für Theoretische Physik und Astrophysik, Universität Würzburg, Campus Hubland Nord, Emil-Fischer-Str. 31, D-97074 Würzburg, Germany

¹⁴ NASA Goddard Space Flight Center, Greenbelt, MD 20771, USA

¹⁵ Italian Space Agency, Via del Politecnico snc, I-00133 Roma, Italy

¹⁶ Space Science Division, Naval Research Laboratory, Washington, DC 20375-5352, USA

¹⁷ INFN-Istituto di Astrofisica Spaziale e Fisica Cosmica Milano, via E. Bassini 15, I-20133 Milano, Italy

¹⁸ University of Padua, Department of Statistical Science, Via 8 Febbraio, 2, 35122 Padova, Italy

¹⁹ Istituto Nazionale di Fisica Nucleare, Sezione di Perugia, I-06123 Perugia, Italy

²⁰ INFN Istituto di Radioastronomia, I-40129 Bologna, Italy

²¹ Department of Physics, University of Johannesburg, P.O. Box 524, Auckland Park 2006, South Africa

²² Department of Physical Sciences, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8526, Japan

²³ Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen Centre for Astroparticle Physics, Erwin-Rommel-Str. 1, D-91058 Erlangen, Germany

²⁴ Istituto Nazionale di Fisica Nucleare, Sezione di Roma "Tor Vergata," I-00133 Roma, Italy

²⁵ Space Science Data Center—Agenzia Spaziale Italiana, Via del Politecnico, snc, I-00133, Roma, Italy

²⁶ Max-Planck-Institut für Physik, D-80805 München, Germany

²⁷ The George Washington University, Department of Physics, 725 21st St NW, Washington, DC 20052, USA

²⁸ University of North Florida, Department of Physics, 1 UNF Drive, Jacksonville, FL 32224, USA

²⁹ Science Institute, University of Iceland, IS-107 Reykjavik, Iceland

³⁰ Nordita, Royal Institute of Technology and Stockholm University, Roslagstullsbacken 23, SE-106 91 Stockholm, Sweden

³¹ Department of Physics, KTH Royal Institute of Technology, AlbaNova, SE-106 91 Stockholm, Sweden

³² The Oskar Klein Centre for Cosmoparticle Physics, AlbaNova, SE-106 91 Stockholm, Sweden

³³ School of Education, Health and Social Studies, Natural Science, Dalarna University, SE-791 88 Falun, Sweden

³⁴ Deutsches Elektronen Synchrotron DESY, D-15738 Zeuthen, Germany

³⁵ Istituto Nazionale di Fisica Nucleare, Sezione di Trieste, I-34127 Trieste, Italy; francesco.longo@trieste.infn.it

³⁶ Dipartimento di Fisica, Università di Trieste, I-34127 Trieste, Italy

³⁷ Institut für Astro- und Teilchenphysik, Leopold-Franzens-Universität Innsbruck, A-6020 Innsbruck, Austria

³⁸ Hiroshima Astrophysical Science Center, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8526, Japan

³⁹ Center for Research and Exploration in Space Science and Technology (CRESST) and NASA Goddard Space Flight Center, Greenbelt, MD 20771, USA

⁴⁰ Department of Physics and Center for Space Sciences and Technology, University of Maryland Baltimore County, Baltimore, MD 21250, USA

⁴¹ Istituto Nazionale di Fisica Nucleare, Sezione di Trieste, and Università di Trieste, I-34127 Trieste, Italy

⁴² Osservatorio Astronomico di Trieste, Istituto Nazionale di Astrofisica, I-34143 Trieste, Italy

⁴³ Laboratoire Univers et Particules de Montpellier, Université Montpellier, CNRS/IN2P3, F-34095 Montpellier, France

⁴⁴ Department of Physics and Astronomy, University of Padova, Vicolo Osservatorio 3, I-35122 Padova, Italy

⁴⁵ Center for Space Studies and Activities "G. Colombo," University of Padova, Via Venezia 15, I-35131 Padova, Italy

⁴⁶ Korea Astronomy and Space Science Institute, 776 Daedeokdae-ro, Yuseong-gu, Daejeon 30455, Republic of Korea

⁴⁷ NYCB Real-Time Computing Inc., Lattingtown, NY 11560-1025, USA

⁴⁸ Department of Physics, University of Maryland, College Park, MD 20742, USA

⁴⁹ Department of Astronomy, University of Maryland, College Park, MD 20742, USA⁵⁰ Praxis Inc., Alexandria, VA 22303, USA⁵¹ Center for Astrophysics and Cosmology, University of Nova Gorica, Nova Gorica, Slovenia

Received 2021 August 23; published 2021 September 17

In the published article, several references were accidentally left out of the text. The papers that we would like to cite are the following:

1. In the *Introduction* section, on page 2 the first sentence of the seventh paragraph should be: In this Fermi-LAT Solar Flare (FLSF) catalog we present the observations of 45 flares with >30 MeV emission in the period 2010–2018 January (covering most of the 24th solar cycle), extending on the work done by Share et al. (2018).
2. In the *Results* section, page 20 at the end of the first paragraph: All CME information was obtained from the CME online catalog of Gopalswamy et al. (2009, 2010).
3. In the *Results* section, page 23 at the end of the first paragraph: Winter et al. (2018) also reported that nearly all fast CMEs are associated with long-duration gamma-ray solar flares.
4. In subsection 4.2, *Flare Series*, on page 23 at the end of the paragraph: Similar results on the connection of long-lasting gamma-ray emission with SEPs were also reported by Gopalswamy et al. (2019).
5. In the *Summary and Discussion* section, end of list item 7: as first suggested by Gopalswamy et al. (2019).
6. In the *Summary and Discussion* section, after the second sentence on page 30: Fermi-LAT gamma-ray duration has been found to be correlated with the type II burst duration indicating the shock origin of the underlying electrons and ions (Gopalswamy et al. 2018).
7. In the *Summary and Discussion* section, at the end of the first paragraph on page 30: Further support for the CME-shock scenario has been reported by Gopalswamy et al. (2018, 2019, 2020, 2021), Kouloumvakos et al. (2020), Plotnikov et al. (2017), and Share et al. (2018).
8. In the *Summary and Discussion* section, at the end of the second sentence of the second paragraph on page 30, Ryan (2000) should be cited.
9. In the *Summary and Discussion* section, at the end of the second paragraph on page 30: Intriguing support for this scenario has been reported by Gary et al. (2018) and Grechnev et al. (2018).

ORCID iDs

M. Ajello  <https://orcid.org/0000-0002-6584-1703>
 L. Baldini  <https://orcid.org/0000-0002-9785-7726>
 D. Bastieri  <https://orcid.org/0000-0002-6954-8862>
 R. Bellazzini  <https://orcid.org/0000-0002-2469-7063>
 E. Bissaldi  <https://orcid.org/0000-0001-9935-8106>
 R. D. Blandford  <https://orcid.org/0000-0002-1854-5506>
 R. Bonino  <https://orcid.org/0000-0002-4264-1215>
 R. A. Cameron  <https://orcid.org/0000-0003-0942-2747>
 R. Caputo  <https://orcid.org/0000-0001-7150-9638>
 E. Cavazzuti  <https://orcid.org/0000-0001-7150-9638>
 C. C. Cheung  <https://orcid.org/0000-0002-4377-0174>
 S. Cutini  <https://orcid.org/0000-0002-1271-2924>
 F. D’Ammando  <https://orcid.org/0000-0001-7618-7527>
 N. Di Lalla  <https://orcid.org/0000-0002-7574-1298>
 L. Di Venere  <https://orcid.org/0000-0003-0703-824X>
 Y. Fukazawa  <https://orcid.org/0000-0002-0921-8837>
 S. Funk  <https://orcid.org/0000-0002-2012-0080>
 P. Fusco  <https://orcid.org/0000-0002-9383-2425>
 F. Gargano  <https://orcid.org/0000-0002-5055-6395>
 D. Gasparri  <https://orcid.org/0000-0002-5064-9495>
 M. Giroletti  <https://orcid.org/0000-0002-8657-8852>
 D. Green  <https://orcid.org/0000-0003-0768-2203>
 S. Guiriec  <https://orcid.org/0000-0001-5780-8770>
 E. Hays  <https://orcid.org/0000-0002-8172-593X>
 J. W. Hewitt  <https://orcid.org/0000-0001-5254-2248>
 G. Jóhannesson  <https://orcid.org/0000-0003-1458-7036>
 M. Kuss  <https://orcid.org/0000-0003-1212-9998>

S. Larsson  <https://orcid.org/0000-0003-0716-107X>
 L. Latronico  <https://orcid.org/0000-0002-0984-1856>
 F. Longo  <https://orcid.org/0000-0003-2501-2270>
 P. Lubrano  <https://orcid.org/0000-0003-0221-4806>
 S. Maldera  <https://orcid.org/0000-0002-0698-4421>
 A. Manfreda  <https://orcid.org/0000-0002-0998-4953>
 M. N. Mazziotta  <https://orcid.org/0000-0001-9325-4672>
 I. Mereu  <https://orcid.org/0000-0003-0219-4534>
 T. Mizuno  <https://orcid.org/0000-0001-7263-0296>
 M. E. Monzani  <https://orcid.org/0000-0002-8254-5308>
 A. Morselli  <https://orcid.org/0000-0002-7704-9553>
 I. V. Moskalenko  <https://orcid.org/0000-0001-6141-458X>
 M. Negro  <https://orcid.org/0000-0002-6548-5622>
 N. Omodei  <https://orcid.org/0000-0002-5448-7577>
 M. Persic  <https://orcid.org/0000-0003-1853-4900>
 M. Pesce-Rollins  <https://orcid.org/0000-0003-1790-8018>
 V. Petrosian  <https://orcid.org/0000-0002-2670-8942>
 F. Piron  <https://orcid.org/0000-0001-6885-7156>
 T. A. Porter  <https://orcid.org/0000-0002-2621-4440>
 J. L. Racusin  <https://orcid.org/0000-0002-4744-9898>
 S. Rainò  <https://orcid.org/0000-0002-9181-0345>
 R. Rando  <https://orcid.org/0000-0001-6992-818X>
 B. Rani  <https://orcid.org/0000-0001-5711-084X>
 M. Razzano  <https://orcid.org/0000-0003-4825-1629>
 S. Razzaque  <https://orcid.org/0000-0002-0130-2460>
 A. Reimer  <https://orcid.org/0000-0001-8604-7077>
 O. Reimer  <https://orcid.org/0000-0001-6953-1385>
 D. Serini  <https://orcid.org/0000-0002-9754-6530>
 C. Sgrò  <https://orcid.org/0000-0001-5676-6214>
 E. Troja  <https://orcid.org/0000-0002-1869-7817>

⁵² Funded by contract FIRB-2012-RBFR12PM1F from the Italian Ministry of Education, University and Research (MIUR), Italy.

⁵³ Resident at Naval Research Laboratory, Washington, DC 20375, USA.

References

- Gary, D. E., Chen, B., Dennis, B. R., et al. 2018, [ApJ](#), **863**, 83
- Gopalswamy, N., Mäkelä, P., Yashiro, S., et al. 2018, [ApJL](#), **868**, L19
- Gopalswamy, N., Mäkelä, P., Yashiro, S., et al. 2019, [JPhCS](#), **1332**, 012004
- Gopalswamy, N., Mäkelä, P., Yashiro, S., et al. 2020, [SoPh](#), **295**, 18
- Gopalswamy, N., Yashiro, S., Mäkelä, P., Xie, H., & Akiyama, S. 2021, [ApJ](#), **915**, 82
- Gopalswamy, N., Yashiro, S., Michalek, G., et al. 2009, [EM&P](#), **104**, 295
- Gopalswamy, N., Yashiro, S., Michalek, G., et al. 2010, [SunGe](#), **5**, 7
- Grechnev, V. V., Kiselev, V. I., Kashapova, L. K., et al. 2018, [SoPh](#), **293**, 133
- Kouloumvakos, A., Rouillard, A. P., Share, G. H., et al. 2020, [ApJ](#), **893**, 76
- Plotnikov, I., Rouillard, A. P., & Share, G. H. 2017, [A&A](#), **608**, A43
- Ryan, J. M. 2000, [SSRv](#), **93**, 581
- Share, G. H., Murphy, R. J., White, S. M., et al. 2018, [ApJ](#), **869**, 182
- Winter, L. M., Bernstein, V., Omodei, N., & Pesce-Rollins, M. 2018, [ApJ](#), **864**, 39