

**October 20, 2017**

## **SCIENTIFIC WORKS ON SANTILLI TELESCOPE**

### **The Institute for Basic Research**

#### **BASIC REFERENCE**

R.M. Santilli, Isodual Theory of Antimatter with Application to Antigravity, Grand Unification and the Spacetime Machine, Springer (2006)

<http://www.santilli-foundation.org/docs/santilli-79.pdf>

#### **NEED FOR ANTIMATTER GALAXIES**

S. Beghella-Bartoli, R. M. Santilli "Possible Role of Antimatter Galaxies for the Stability of the Universe," American Journal of Modern Physics 2016; 5(2-1): 185-190

<http://www.santilli-foundation.org/docs/pdf11.pdf>

#### **ORIGINAL DETECTION OF ANTIMATTER GALAXIES**

R. M. Santilli, "Apparent detection of antimatter galaxies via a telescope with convex lenses," Clifford Analysis, Clifford Algebras and their Applications vol. 3, 2014, pages 1-26 (Cambridge, UK),

<http://www.santilli-foundation.org/docs/Antimatter-telescope-2013-final.pdf>

R. M. Santilli, ``Apparent Detection of a New Antimatter Galaxy in the Capella Region of the Night Sky," Clifford Analysis, Clifford Algebras and their Applications, in press (2016)

<http://www.santilli-foundation.org/docs/capella-antimatter-galaxy.pdf>

#### **INDEPENDENT CONFIRMATIONS**

S. Beghella-Bartoli, Prashant M. Bhujbal, Alex Nas, Confirmation of antimatter detection via Santilli telescope with concave lenses, American Journal of Modern Physics Vol. 4, pages 34-41 (2015)

<http://www.santilli-foundation.org/docs/antimatter-detect-2014.pdf>

P. M. Bhujbal, "Santilli's Detection of Antimatter Galaxies: An Introduction and Experimental Confirmation," AIP Conference Proceedings 1648, 510005 (2015); doi: 10.1063/1.4912710

[http://www.santilli-foundation.org/docs/1.4912710\(PM Bhujbal\).pdf](http://www.santilli-foundation.org/docs/1.4912710(PM Bhujbal).pdf)

## RECENT REVIEW

R. M. Santilli, "An introduction to the new sciences for a new era," R. M. Santilli, "An introduction to new sciences for a new era" Invited paper, in press, in press at Clifford Analysis, Clifford Algebras and their Applications, Vol. 6, No. 1, pp. 1-119, 2017

<http://www.santilli-foundation.org/docs/new-sciences-new-era.pdf>

## SCIENTIFIC WORKS ON SANTILLI TELESCOPE

- [1] R. M. Santilli, "Isonumber and genonumbers of dimension 1, 2, 4, 8, their isoduals and pseudoduals, and hidden numbers of dimension 3, 5, 6, 7, Algebras, Groups and Geometries Vol. 10, 1993, pp.273-321, <http://www.santilli-foundation.org/docs/Santilli-34.pdf>
- [2] R. M. Santilli, "Nonlocal-Integral Isotopies of Differential Calculus, Mechanics and Geometries, in Isotopies of Contemporary Mathematical Structures," Rendiconti Circolo Matematico Palermo, Suppl. Vol. 42, 1996, pp. 7-82, <http://www.santilli-foundation.org/docs/Santilli-37.pdf>
- [3] R. M. Santilli, *Isodual Theory of Antimatter with Application to Antigravity, Grand Unification and the Spacetime Machine*, Springer 2001 <http://www.santilli-foundation.org/docs/santilli-79.pdf>
- [4] R. M. Santilli, "A new cosmological conception of the universe based on the isominkowskian geometry and its isodual, Part I pages 539-612 and Part II pages Contributed paper in Analysis, Geometry and Groups, A Riemann Legacy Volume, Volume II, H.M. Srivastava, Editor, pp. 539-612 (1993)
- [5] R. M. Santilli, "Representation of antiparticles via isodual numbers, spaces and geometries," Comm. Theor. Phys. vol. 3, 1994, pp. 153-181, <http://www.santilli-foundation.org/docs/Santilli-112.pdf>
- [6] R. M. Santilli, "Antigravity," Hadronic J. vol. 17 1994, pp. 257-284, <http://www.santilli-foundation.org/docs/Santilli-113.pdf>
- [7] R. M. Santilli, Isotopic relativity for matter and its isodual for antimatter, Gravitation vol. 3, 1997, pp. 2-12.
- [8] R. M. Santilli, "Does antimatter emit a new light?" Invited paper for the proceedings of the International Conference on Antimatter, held in Sepino, Italy, on May 1996, invited publication in Hyperfine Interactions vol. 109, 1997, pp. 63-81, <http://www.santilli-foundation.org/docs/Santilli-28.pdf>
- [9] R. M. Santilli, "Isominkowskian Geometry for the Gravitational Treatment of Matter and its Isodual for Antimatter," Intern. J. Modern Phys. vol. D7, 1998, pp. 351-365, <http://www.santilli-foundation.org/docs/Santilli-35.pdf>
- [10] R. M. Santilli, "Classical isodual theory of antimatter and its prediction of antigravity," Intern. J. Modern Phys, vol. A 14,1999, pp. 2205-228, <http://www.santilli-foundation.org/docs/Santilli-09.pdf>
- [11] R. M. Santilli, Isodual Theory of Antimatter with Applications to Antigravity, Grand Unification and Cosmology, Springer (2006).
- [12] R. M. Santilli, Lie-admissible invariant representation of irreversibility for matter and antimatter at the classical and operator levels, Nuovo Cimento B, Vol. 121, 2006, pp. 443-497, [www.santilli-foundation.org/docs/Lie-admiss-NCB-I.pdf](http://www.santilli-foundation.org/docs/Lie-admiss-NCB-I.pdf)
- [13] R. M. Santilli, "The Mystery of Detecting Antimatter Asteroids, Stars and Galaxies,"

American Institute of Physics, Proceed. 2012, pp. 1479, 1028-1032, [www.santilli-foundation.org/docs/antimatter-asteroids.pdf](http://www.santilli-foundation.org/docs/antimatter-asteroids.pdf)

- [14] R. M. Santilli et al., Studies of Multi-Valued Hyperstructures for the Characterization of Matter-Antimatter Systems and their Extension, in Proceedings of the 2011 International Conference on Lie-admissible Formulations for Irreversible Processes, C. Corda, editor, Kathmandu University, Nepal, 2011, <http://www.santilli-foundation.org/Hyperstructures.pdf>
- [15] R. M. Santilli, "Apparent detection of antimatter galaxies via a telescope with convex lenses," Clifford Analysis, Clifford Algebras and their Applications vol. 3, 2014, pages 1-26 (Cambridge, UK), <http://www.santilli-foundation.org/docs/Antimatter-telescope-2013-final.pdf>
- [16] J. V. Kadeisvili, Foundations of the Lie-Santilli isotheory and its isodual, Rendiconti Circolo Matematico Palermo, Suppl. 1996, 42, 83-185 <http://www.santilli-foundation.org/docs/Santilli-37.pdf>
- [17] C-X. Jiang, Foundations of Santilli Isonumber Theory, International Academic Press (2001), <http://www.i-b-r.org/docs/jiang.pdf>
- [18] C. Corda, Introduction to Santilli IsoNumbers, AIP Conf. Proceed. vol. 1479, 2013, pp. 1013-1018, <http://www.santilli-foundation.org/docs/Corda-2012.pdf>
- [19] P. S. Muktibodh, "Introduction to Isodual Mathematics and its Application to Special Relativity," American Institute of Physics Proceedings 2013, <http://www.santilli-foundation.org/docs/P-Muktibodh.pdf>
- [20] A. P. Mills, Possibilities of measuring the gravitational mass of electrons and positrons in free horizontal flight, contributed paper for the Proceedings of the International Conference on Antimatter, held in Sepino, Italy, May 1996, published in the Hadronic J. 1996 19, 77-96 <http://www.santilli-foundation.org/docs/Santilli-11.pdf>
- [21] V. de Haan, Proposal for the realization of Santilli comparative test on the gravity of electrons and positrons via a horizontal supercooled vacuum tube, Proceedings of the Third International Conference on the Lie-Admissible Treatment of Irreversible Processes, C. Corda, Editor, Kathmandu University, 2011, pp. 57-67 <http://www.santilli-foundation.org/docs/deHaan-Arxiv.pdf>
- [22] R. Anderson, A. A. Bhalekar, B. Davvaz,, P. Muktibodh, V. M. Tangde, and T. Vougiouklis, An introduction to Santilli isodual theory of antimatter and the ensuing problem of detecting antimatter asteroids," Numta Bulletin vol. 6, 2012-2013, pp. 1-33 <http://www.santilli-foundation.org/docs/Antimatter-2013.pdf>
- [23] Bhalekar, A. "Studies of Santilli's isotopic, genotopic and isodual four directions of time," American Institute of Physics proceedings, vol. 1558, 2013, pp. 697-701, <http://www.santilli-foundation.org/docs/Bhalekar-2013-I.pdf>
- [24] I. Gandzha, and J. V. Kadeisvili, New Sciences for a New Era: Mathematical, Physical and Chemical Discoveries of Ruggero Maria Santilli, Sankata Printing Press, Nepal, 2011 <http://www.santilli-foundation.org/docs/RMS.pdf>
- [25] P.M. Bhujbal, J. V. Kadeisvili, A. Nas, S Randall, and T. R. Shelke, "Preliminary confirmation of antimatter detection via Santilli telescope with concave lenses," Clifford Analysis, Clifford Algebras and their Applications vol. 3, 2014, pp. 27-39, (Cambridge, UK) ,[www.santilli-foundation.org/docs/Con-Ant-Tel-2013.pdf](http://www.santilli-foundation.org/docs/Con-Ant-Tel-2013.pdf)
- [26] S. Beghella Bartoli, "Trajectories of antimatter bodies in our Solar system according to the isodual theory of antimatter and possible impacts with Earth," Hadronic Journal vol. 37, 2014, pages 1-27, <http://www.santilli-foundation.org/docs/Simone-FINAL.pdf>
- [27] B. Davvaz, R. M. Santilli and T. Vougiouklis, Mathematical prediction of Ying's twin universes, American Journal of Modern Physics,, in press 2014, <http://www.santilli-foundation.org/docs/ying-twing-univ.pdf>
- [28] S. Georgiev, Foundations of the IsoDifferential Calculus, Volumes I to VII, Nove Science Publishers, 2014 on
- [29] S. R. Anderson, P. M. Bhujbal, and A. Nas, " Original images of the detections,"

<http://www.santilli-foundation.org/docs/original-images.zip>

- [30] NASA Release, "Fermi Catches Thunderstorms Hurling Antimatter into Space,"  
[http://www.nasa.gov/mission\\_pages/GLAST/news/fermi-thunderstorms.html](http://www.nasa.gov/mission_pages/GLAST/news/fermi-thunderstorms.html)
- [31] S. Beghella-Bartoli, Prashant M. Bhujbal, Alex NasConfirmation of antimatter detection via Santilli telescope with concave lensesAmerican Journal of Modern Physics Vol. 4, pages 34-41 (2015) <http://www.santilli-foundation.org/docs/antimatter-detect-2014.pdf>
- [32] M. Santilli<br>, "Apparent Detection of a New Antimatter Galaxy in the Capella Region of the Night Sky Clifford Analysis, Clifford Algebras and their Applications, Vol. 5, No. 3, pp. 223-235, 2016<br><http://www.santilli-foundation.org/docs/capella-antimatter-galaxy.pdf>
- [33] S. Beghella-Bartoli and R. M. santilli, "Possible Role of Antimatter Galaxies for the Stability of the Universe," American Journal of Modern Physics, in press (2016)<http://www.santilli-foundation.org/docs/Beghella-Santilli-2016.pdf>
- [34] S. Beghella-Bartoli, R. M. Santilli., "Possible Role of Antimatter Galaxies for the Stability of the Universe" American Journal of Modern Physics 2016; 5(2-1): 185-190<http://www.santilli-foundation.org/docs/pdf11.pdf>
- [35] P. M. Bhujbal, "Santilli's Isodual Mathematics and Physics for Ant\American Journal of Modern Physics 2016; 5(2-1): 161-184<http://www.santilli-foundation.org/docs/pdf10.pdf>

## **PRWEB NEWS RELEASES ON ANTIMATTER**

(All original linkjs are available in the archives  
<http://www.santilli-foundation.org/news.html> )

[C1] Apparent Detection of Antimatter Galaxies via Santilli's Telescope with Concave Lenses  
Announcement  
<http://www.prweb.com/releases/2014/02/prweb11589410.htm>  
Report  
<http://www.santilli-foundation.org/docs/Apparent-detect.pdf>

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[C2] PRWeb Release  
Detection of Antimatter Galaxies via Santilli Telescope with Concave Lenses  
Confirmed at the Sorbonne University, France  
Announcement  
<http://www.prweb.com/releases/2014/03/prweb11670914.htm>  
Report  
<http://www.santilli-foundation.org/docs/PRWeb-16.pdf>

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[C3] PRWeb release  
Prof. R. M. Santilli Interviewed by French Scientists on the  
Danger for Earth of Antimatter Asteroids  
Announcement <http://www.prweb.com/releases/2014/06/prweb11902027.htm>  
Report

<http://www.santilli-foundation.org/docs/9c2db357-f730-4113-8690-0539abd621f1.pdf>

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[C4] PRWeb release  
Trajectories of Antimatter Asteroids That Could Hit Earth  
Computed by Planetary Experts  
Announcement  
<http://www.prweb.com/releases/2014/05/prweb11842758.htm>  
Report  
<http://www.santilli-foundation.org/docs/9c2db357-f730-4113-8690-0539abd621f1.pdf>

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PRWeb release  
Trajectories of Antimatter Asteroids That Could Hit Earth  
Computed by Planetary Experts  
Announcement  
<http://www.prweb.com/releases/2014/05/prweb11842758.htm>  
Report  
<http://www.santilli-foundation.org/docs/9c2db357-f730-4113-8690-0539abd621f1.pdf>

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Studies for the Detection of Antimatter Asteroids Promoted  
by the R. M. Santilli Foundation  
<http://www.prweb.com/releases/2013/9/prweb11118385.htm>  
Report  
<http://www.santilli-foundation.org/docs/Studies-antimatter.pdf>  
PRWeb Announcement No 5

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<http://www.globenewswire.com/news-release/2017/10/26/1154302/0/en/Are-Antimatter-Asteroids-Partially-Responsible-for-the-Recent-Rapid-Wildfires-in-California-Asks-Dr-Santilli-of-Thunder-Energies-Corporation.html>  
Are Antimatter Asteroids Partially Responsible for the Recent Rapid Wildfires in California? Asks Dr. Santilli of Thunder Energies Corporation

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Initiation of the Search for a New Solar Corona Composed of Antimatter Light  
<http://thunder-energies.com/antimatter-light-corona.html>