

## List of publications and citations

Gergely Székely, 2012.02.

### Journal Articles, refereed:

1. *Closed Timelike Curves in Relativistic Computation*; Parallel Processing Letters; to appear, 2012. Coauthors: H. Andréka, I. Németi.
2. *A logic road from special relativity to general relativity*; Synthese; Online First, 2011. Coauthors: H. Andréka, J. X. Madarász, I. Németi.  
Independent citations: [KAM11], [Sta11a], [Sta11b].  
Dependent citations: [Szé10a], [ANS11].
3. *On Logical Analysis of Relativity Theories*; Hungarian Phil Review; Vol. 54 2010/4; 2011; pp.204–222. Coauthors: Andréka, H. Madarász, J. X., Németi.
4. *A Geometrical Characterization of the Twin Paradox and its Variants*, Studia Logica, Vol. 95, pp.161-182, 2010.  
Independent citations: [AMN11a].  
Dependent citations: [Szé09], [Szé11].
5. *Axiomatizing relativistic dynamics without conservation postulates*, Studia Logica, Vol. 89, pp.63–186, 2008. Coauthors: H. Andréka, J. X. Madarász and I. Németi.  
Independent citations: [HD08], [FD10], [Coo11], [Pal11].  
Dependent citations: [ANN08], [ANN09], [Szé09], [Szé10a], [AMN<sup>+</sup>11b], [MS11], [Szé11].
6. *Twin Paradox and the logical foundation of relativity theory*, Foundations of Physics, Vol. 36, pp.681–714, 2006. Coauthors: J. X. Madarász and I. Németi.  
Independent citations: [And06], [Hor05], [Ben08], [Vál08], [SA09], [Zy09], [FD10].  
Dependent citations: [MNS07], [AMNS08], [ANN08], [ANN09], [Szé09], [Szé10b], [AMN<sup>+</sup>11b], [MS11], [Szé11].

### Conference Volumes

7. *Closed Timelike Curves in Relativistic Computation*; In: Proceedings of the Satelit Workshop of UC 2011; M. Stannett, D. Makowiec, A. T. Lawniczak, B. N. Di Stefano (Eds.); TUCS Lecture Notes 14; Turku Centre for Computer Science; Turku, Finland; 2011; pp.155–171. Coauthors: H. Andréka, I. Németi.  
Independent citations: [Sta11a], [Sta11b].  
Dependent citations: [AMN11a].

8. *New Challenges in the Axiomatization of Relativity Theory*, In: Á. Poroszlai, G. Poroszlai, Z. Petrák (eds.), Proceedings of the New Challenges in the Field of Military Sciences 2010 7th International Scientific Conference, Budapest, Bolyai János Military Foundation, 2010. 8pp. (CD) ISBN 978-963-87706-6-0.
9. *A logical investigation of inertial and accelerated observers in flat space-time*, In: F. Gécseg, J. Csirik, Gy. Turán (eds.), Kalmár Workshop on Logic and Computer Science, pp.45–57. Szeged, JATE University of Szeged, 2003. Coauthors: H. Andréka, J. X. Madarász and I. Németi.  
Dependent citations: [Szé03], [Szé04], [Szé09].

### Book Chapters:

10. *On Why-Questions in Physics*, In: The Vienna Circle in Hungary; A. Máté, M. Rédei, F. Stadler, (Eds.) Springer-Verlag; Wien; 2011; pp.181–189.  
Independent citations: [AAMN09].  
Dependent citations: [Szé09], [Szé10a], [Szé10b], [AMN+11b], [ANS11], [Szé11].
11. *Vienna Circle and Logical Analysis of Relativity Theory*, In: The Vienna Circle in Hungary; A. Máté, M. Rédei, F. Stadler, (Eds.) Springer-Verlag; Wien; 2011; pp.147–267. Coauthors: H. Andréka, J. X. Madarász, I. Németi and P. Németi.  
Dependent citations: [Szé09], [Ném09b], [Szé11].
12. *Comparing Relativistic and Newtonian Dynamics in First-Order Logic*, In: The Vienna Circle in Hungary; A. Máté, M. Rédei, F. Stadler, (Eds.) Springer-Verlag; Wien; 2011; pp.155–179. Coauthor: J. X. Madarász.  
Dependent citations: [Szé09], [Szé11].
13. *First-Order Logic Foundation of Relativity Theories*, In: D.M. Gabbay, S.S. Goncharov, M. Zakharyashev (eds.), New Logics for the XXI-st Century II, Mathematical Problems from Applied Logics, International Mathematical Series, Vol. 5, pp.217–252. Springer, 2007. Coauthors: J. X. Madarász and I. Németi.  
Independent citations: [And06], [Bel12].  
Dependent citations: [ANN08], [ANN09], [Szé09], [AMN+11b], [MS11], [Szé11].

### Dissertations:

14. *First-Order Logic Investigation of Relativity Theory (with an Emphasis on Accelerated Observers)*, Ph.D. dissertation (152pp.), Budapest, Eötvös Loránd University, 2009.  
<http://www.renyi.hu/~turms/phd.pdf>.  
Independent citations: [AAMN09], [And09], [Ném09a], [Ném09b], [Sta09], [AMN11a], [Sta11b], [Sta11c].

Dependent citations: [AMNS08], [Szé10a], [Szé10b], [AMN<sup>+</sup>11b], [ANS11], [MS11], [Szé11].

15. *A First Order Logic Investigation of the Twin Paradox and Related Subjects*, M.Sc. dissertation (46pp.), Budapest, Eötvös Loránd University, 2004. <http://www.renyi.hu/~turms/master-thesis.pdf>.

Independent citations: [AMN06], [Hor05].

Dependent citations: [MNS07], [MNS06], [Szé10b], [Szé09].

#### **TDK paper:**

16. *Az ikerparadoxon elsőrendű logikai tárgyalásában*, TDK paper (23pp.), Budapest, Eötvös Loránd University, 2003. <http://www.renyi.hu/~turms/tdk.pdf>.

Independent citations: [AMN06].

Dependent citations: [Szé04], [Szé10b], [Szé09].

#### **Course Notes:**

17. *Logic and Relativity Theory*, Course Note, (27pp.), Budapest, ELTE, 2006. Coauthors: H. Andréka, J. X. Madarász, I. Németi and P. Németi. <http://www.math-inst.hu/pub/algebraic-logic/kurzus-2006/kurzus-h-2006.htm>.

Independent citations: [CS09], [CS10].

#### **Preprints:**

18. *A Logical Analysis of the Time-warp Effect of General Relativity* (43pp.), Budapest, 2007. arXiv:0709.2521v1. Coauthors: J. X. Madarász and I. Németi.

Dependent citations: [MNS07], [Szé09].

#### **Journal Articles in Hungarian, refereed:**

19. *A kiterjesztett Bolyai Geometria cosinus-tételének bizonyítása*, Bolyai Szemle, 2009. XVIII/2. pp.47–66. Coauthor: L. Szellő.
20. *Két sejtés kiterjesztett geometriák koszinusz-tételeiről*, Bolyai Szemle, 2008. XVII/3. pp.19–32. Coauthors: I. Horváth and L. Szellő.

#### **Abstracts:**

21. *The effects of gravitation on clocks, proved in axiomatic relativity*, Abstract for the conference “Logic in Hungary – 2005,” Coauthor: J. X. Madarász. <http://atlas-conferences.com/cgi-bin/abstract/caqb-41>.

Independent citations: [ND06], [ANN08], [ANN09].

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- [AMN<sup>+</sup>11b] H. Andréka, J. X. Madarász, I. Németi, P. Németi, and G. Székely. Vienna circle and logical analysis of relativity theory. In A. Máté, M. Rédei, and F. Stadler, editors, *The Vienna Circle in Hungary*, pages 247–267. Springer-Verlag, Wien, 2011.
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