

PUBLICATION RECORD (LÁSZLÓ ÁRPÁD GERGELY)

SUMMARY

Total number of scientific works:	120
<i>36 as single author (S), 73 with my students and other coauthors, 11 LIGO Scientific Collaboration (LSC)</i>	
in refereed journals	68
<i>18 S, 45 with my students and other coauthors, 5 LSC</i>	
Nature Physics	1 (1 LSC)
Astrophysical Journal Supplement Series	2
Astrophysical Journal	1
Journal of Cosmology and Astroparticle Physics	4 (1 S)
Monthly Notices of the Royal Astronomical Society	2
Physical Review D	32 (12 S, 2 LSC)
Astronomy and Astrophysics	2 (2 LSC)
Classical and Quantum Gravity	12 (3 S)
European Physical Journal C	1
Annals of Physics	1 (1 S)
Physics Letters A	1
Annalen der Physik	2
Journal of Mathematical Physics	3 (1 S)
International Journal of Modern Physics D	1
Research in Astronomy and Astrophysics	1
PMC Physics A (open access)	2
Submitted	8 (5 LSC)
in conference proceedings volumes	29
Nuclear Physics B – Proceedings Supplement	4
AIP Conference Proceedings	4
Journal of Physics: Conference Series	4
Publications Astron Dept Eötvös University	1
conference proceedings books	14
conference reports (on arXiv)	2
award-winning essay	1
other arXiv preprints	1 (1 LSC)
popularization of science in Hungarian	8
dissertations, theses (in Hungarian / Romanian)	3 / 2

Publication and citation data in international databases:

<http://inspirehep.net/author/Gergely,+L.>

http://adsabs.harvard.edu/cgi-bin/nph-abs_connect?db_key=AST&db_key=PHY&db_key=PRE&qform=PHY&arxiv_sel=astro-ph&arxiv_sel=cond-mat&arxiv_sel=cs&arxiv_sel=gr-qc&arxiv_sel=hep-ex&arxiv_sel=hep-lat&arxiv_sel=hep-ph&arxiv_sel=hep-th&arxiv_sel=math&arxiv_sel=math-ph&arxiv_sel=nlin&arxiv_sel=nucl-ex&arxiv_sel=nucl-th&arxiv_sel=physics&arxiv_sel=quant-ph&arxiv_sel=q-bio&aut_logic=OR&author=gergely%2C+I%0D%0Aarpad+gergely%2C+I&ned_query=YES&sim_query=YES&start_mon=01&start_year=1993&end_mon=&end_year=&t1_logic=OR&t1_title=&t1_txt_logic=OR&t1_text=&nr_to_return=200&start_nr=1&jou_pick=ALL&ref_step_ms=&data_and=ALL&group_and=ALL&start_entry_day=&start_entry_mon=&start_entry_year=&end_entry_day=&end_entry_mon=&end_entry_year=&min_score=&sort=SCORE&data_type=SHORT&aut_syn=YES&t1_syn=YES&t1_txt_syn=YES&aut_wt=1.0&t1_wt=0.3&t1_wt=3.0&aut_wqt=YES&obj_wqt=YES&t1_wqt=YES&t1_txt_wqt=YES&t1_sco=YES&t1_txt_sco=YES&version=1

DETAILED PUBLICATION LIST

- [120] *Swift follow-up observations of candidate gravitational-wave transient events*
PA Evans, JK Fridriksson, N Gehrels, J Homan, JP Osborne, M Siegel, A Beardmore, P Handbauer, J Gelbord, JA Kennea, M Smith, Q Zhu, The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Submitted to *Astrophys. J.* (2012) [LIGO Document P1100038] [arXiv:1205.1124 [astro-ph.HE]]
Paper synopsis for students/teachers/public: <http://www.ligo.org/science/Publication-S6LVSwift/>
- [119] *Weyl fluid dark matter model tested on the galactic scale by weak gravitational lensing*
KC Wong, T Harko, KS Cheng, **LÁ Gergely**
Submitted to *Phys. Rev. D* (2012)
- [118] *The paradox of soft singularity crossing and its resolution by distributional cosmological quantities*
Z Keresztes, **LÁ Gergely**, AY Kamenshchik
Submitted to *Phys. Rev. D* (2012) [arXiv:1204.1199 [gr-qc]]
- [117] *Black hole tidal charge constrained by strong gravitational lensing*
Zs Horváth, **LÁ Gergely**
Submitted to *Class. Quantum Grav.* (2012) [arXiv:1203.6576 [gr-qc]]
- [116] *Virgo data characterization and impact on gravitational wave searches run*
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Submitted to *Class. Quantum Grav.* (2012) [LIGO Document P1200005] [arXiv:1203.5613 [gr-qc]]
- [115] *All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run*
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Submitted to *Phys. Rev. D* (2012) [LIGO Document P1100118] [arXiv:1202.2788 [gr-qc]]
- [114] *Search for Gravitational Waves from Intermediate Mass Binary Black Holes*
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Submitted to *Phys. Rev. D* (2012) [LIGO Document P1100068] [arXiv:1201.5999 [gr-qc]]
- [113] *First Low-Latency LIGO+Virgo Search for Binary Inspirals and their Electromagnetic Counterparts* **IF=4.410**
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration, M Boer, N Gehrels, A Klotz, M Laas-Bourez, P. McDaniel, E Ofek, S Rapoport, M Smith, M Sokolowski, A Zadrozny
Paper synopsis for students/teachers/public: <https://www.lsc-group.phys.uwm.edu/webcomm.php/science/Publication-S6CBCLowLatency/index.php>
To be published in *Astron. Astrophys.* (2012) [LIGO Document P1100065] [arXiv:1112.6005 [astro-ph.CO]]
- [112] *Upper limits on a stochastic gravitational wave background using LIGO and Virgo interferometers at 600-1000 Hz*
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Submitted to *Phys. Rev. D* (2012) [LIGO Document P1000128-v19] [arXiv:1112.5004 [gr-qc]]
- [111] *Search for Gravitational Waves from Low Mass Compact Binary Coalescence in LIGO's Sixth Science Run and Virgo's Science Runs 2 and 3* **IF=4.964**
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Paper synopsis for students/teachers/public: <http://www.ligo.org/science/Publication-S6CBCLowMass/index.php>
Phys. Rev. D **85**, 082002-1-12 (2012) [LIGO Document P1100034] [arXiv:1111.7314 [gr-qc]]
- [110] *Sensitivity Achieved by the LIGO and Virgo Gravitational Wave Detectors during LIGO's Sixth and Virgo's Second and Third Science Runs*
The LIGO Scientific Collaboration, including **LÁ Gergely** + Virgo Collaboration
Companion paper to LIGO Document P1100034, not intended for publication in a journal (2012)
[LIGO Document T1100338] [arXiv:1203.2674 [gr-qc]]
- [109] *All-sky Search for Periodic Gravitational Waves in the Full S5 LIGO Data* **IF=4.964**

- The LIGO Scientific Collaboration + Virgo, including LÁ Gergely
Phys. Rev. D **85**, 022001-1-19 (2012) [*LIGO Document P1100029*] [*arXiv: 1110.0208 [gr-qc]*]
- [108] *Implementation and testing of the first prompt search for gravitational wave transients with electromagnetic counterparts* **IF=4.410**
 The LIGO Scientific Collaboration, including LÁ Gergely+Virgo Collaboration+11 other authors
Astron. Astrophys. **539**, A124 (2012) [*LIGO Document P1000061*] [*arXiv: 1109.3498 [astro-ph.IM]*]
- [107] *On the origin of X-shaped radio galaxies* **IF=0.856**
 Gopal-Krishna, PL Biermann, LÁ Gergely, PJ Wiita
Res. Astron. Astrophys. **12** 127-146 (2012) [*arXiv: 1008.0789 [astro-ph.CO]*]
- [106] *Testing general relativity with laser accelerated electron beams*
 LÁ Gergely, T Harko
 In Proceedings of LEI 2011 – Light at Extreme Intensities Conference, Szeged, Hungary, 2011 To appear in AIP Conference Proceedings (2012)
- [105] *Variable tension brane-worlds*
 LÁ Gergely
 in *The Twelfth Marcel Grossmann Meeting on General Relativity. Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories.* Proceedings of the MG12 Meeting on General Relativity, UNESCO Headquarters, Paris, France, 12-18 July 2009, Eds. T Damour, RT Jantzen and R Ruffini, World Scientific, Singapore, p. 2225-2227 (2012) [*arXiv: 1002.4954 [gr-qc]*]
- [104] *3+1+1 dimensional covariant gravitational dynamics on an asymmetrically embedded brane: The difference equations*
 Z Keresztes, LÁ Gergely
 in *The Twelfth Marcel Grossmann Meeting on General Relativity. Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories.* Proceedings of the MG12 Meeting on General Relativity, UNESCO Headquarters, Paris, France, 12-18 July 2009, Eds. T Damour, RT Jantzen and R Ruffini, World Scientific, Singapore, p. 1948-1951 (2012) [*part of arXiv: 0911.2495 [gr-qc]*]
- [103] *Astrophysics of warm dark matter*
 PL Biermann, JK Becker, LI Caramete, L Clavelli, LÁ Gergely, B Harms, Gopal Krishna, A Meli, B Nath, E-S Seo, V de Souza, P Wiita, T Stanev
 In *Towards the Chalonge 16th Paris Cosmology Colloquium 2012: Highlights and Conclusions of the Chalonge 15th Paris Cosmology Colloquium 2011: From Cold Dark Matter to Warm Dark Matter in the Standard Model of the Universe. Theory and Observations: Ecole Internationale d'Astrophysique Daniel Chalonge*, Observatoire de Paris, July 2011 by HJ de Vega, MC Falvella, NG Sanchez, p. 18-19 (2012) [*arXiv: 1203.3562 [astro-ph.CO]*]
- [102] *Gravitational waves, black hole binaries & squeezed light – in Hungarian*
 LÁ Gergely
Szegedi Tudományegyetem Fizikus Tanszékcsoport HÍRLEVÉL **1201** p. 1-2 (2012)
 [http://titan.physx.u-szeged.hu/physics/Files10/2012_januar.pdf]
- [101] *A gravitational wave observatory operating beyond the quantum shot-noise limit* **IF=18.423**
 The LIGO Scientific Collaboration, including LÁ Gergely
Nature Physics **7** (12) 962-965, (2011), DOI 10.1038/NPHYS2083
 Paper synopsis for students/teachers/public: http://www.ligo.org/news/GEO_squeezing.php
 [*LIGO Document P1000138*]
- [100] *Constraining Hořava-Lifshitz gravity by weak and strong gravitational lensing* **IF=4.964**
 Z Horváth, LÁ Gergely, Z Keresztes, T Harko, FSN Lobo
Phys Rev. D **84**, 083006-1-9 (2011) [*arXiv: 1105.0765 [gr-qc]*]
- [99] *Accretion processes in magnetically and tidally perturbed Schwarzschild black holes* **IF=4.964**
 Z Kovács, LÁ Gergely, M Vasúth
Phys Rev. D **84**, 024018-1-11 (2011) [*arXiv: 1106.0799 [gr-qc]*]
- [98] *Maximal spin and energy conversion efficiency in a symbiotic system of black hole, disk and jet*

- Z Kovács, **LÁ Gergely**, PL Biermann **IF=5.103**
Mon. Not. Royal Astron. Soc. **416**, 991-1009 (2011) [*arXiv: 1007.4279 [astro-ph.CO]*]
- [97] *Galactic rotation curves in brane world models* **IF=5.103**
LÁ Gergely, T Harko, M Dwornik, G Kupi, Z Keresztes
Mon. Not. Royal Astron. Soc. **415**, 3275-3290 (2011) [*arXiv: 1105.0159 [gr-qc]*]
- [96] *Geometro-thermodynamics of tidal charged black holes* **IF=3.248**
LÁ Gergely, N Pidokrajt, S Winitzki
Eur. Phys. J. C **71**, 1569 (2011) [*arXiv: 0811.1548 [gr-qc]*]
- [95] *Gravitationally radiating compact binaries and research in brane-worlds – in Hungarian Thesis for the title “Doctor of the Hungarian Academy of Sciences”, 171 p (2011)*
- [94] *A personal report on the Ars Electronica Festival – in Hungarian*
LÁ Gergely, AI Pető
Szegedi Tudományegyetem Fizikus Tanszékcsoport HÍRLEVÉL **11** p. 2-3 (2011)
[\[http://www2.sci.u-szeged.hu/kepek_fc/file/FTCS_hirlevel_11nov.pdf\]](http://www2.sci.u-szeged.hu/kepek_fc/file/FTCS_hirlevel_11nov.pdf)
- [93] *Research in Gravitation at the University of Szeged – in Hungarian*
LÁ Gergely
Szegedi Tudományegyetem Fizikus Tanszékcsoport HÍRLEVÉL **03** p. 1-2 (2011)
[\[http://titan.physx.u-szeged.hu/physics/Files10/2011_marcus.pdf \]](http://titan.physx.u-szeged.hu/physics/Files10/2011_marcus.pdf)
- [92] *Will the tachyonic universe survive the big brake?* **IF=4.964**
Z Keresztes, **LÁ Gergely**, AY Kamenshchik, V Gorini, D Polarski
Phys. Rev. **82**, 123534-1-12 (2010) [*arXiv: 1009.0776 [gr-qc]*]
- [91] *Image formation in weak gravitational lensing by tidal charged black holes* **IF=3.098**
Z Horváth, **LÁ Gergely**, D Hobill
Class. Quantum Grav. **27**, 235006-1-22 (2010) [*arXiv: 1005.2286 [gr-qc]*]
- [90] *Spinning compact binary inspiral II: Conservative angular dynamics* **IF=4.964**
LÁ Gergely
Phys. Rev. D **82**, 104031-1-15 (2010) [*arXiv: 1005.5330 [gr-qc]*]
- [89] *Supermassive black hole spin-flip during the inspiral* **IF=3.098**
LÁ Gergely, PL Biermann, LI Caramete
Proceedings of the Gravitational Wave Data Analysis Workshop GWDAW14, Roma, Italy 2010, Ed. F Ricci
Class. Quantum Grav. **27**, 194009-1-10 (2010) [*arXiv: 1005.2287 [astro-ph.CO]*]
- [88] *Spinning compact binary inspiral: Independent variables and dynamically preserved spin configurations* **IF=4.964**
LÁ Gergely
Phys. Rev. D **81**, 084025-1-10 (2010) [*arXiv: 0912.0459 [gr-qc]*]
- [87] *Covariant gravitational dynamics in 3+1+1 dimensions* **IF=3.098**
Z Keresztes, **LÁ Gergely**
Class. Quantum Grav. **27**, 105009-1-39 (2010) [*arXiv: 0909.0490 [gr-qc]*]
- [86] *3+1+1 dimensional covariant gravitational dynamics on an asymmetrically embedded brane: The average equations* **IF=0.861**
Z Keresztes, **LÁ Gergely**
Proceedings of the Grassmannian Conference in Fundamental Cosmology (Grasscosmofun'09), Szczecin, Poland 2009, Eds. MP Dąbrowski, KA Meissner, YuV Shtanov
Ann. Physik **19**, 249-253 (2010). [*part of arXiv: 0911.2495 [gr-qc]*]
- [85] *Compact binary waveform recovery from the cross-correlated data of two detectors by matched filtering with spinning templates*
L Veréb, Z Keresztes, P Raffai, Zs Udvari, M Tápai, **LÁ Gergely**
Proceedings of the Gravitational Wave Data Analysis Workshop GWDAW14, Roma, Italy 2010, Ed. F Ricci

- J. Phys.: Conf. Series (JPCS) **243**, 012008-1-6 (2010) [arXiv: 1005.2101 [gr-qc]]
- [84] *Secular momentum transport by gravitational waves from spinning compact binaries*
Z Keresztes, B Mikóczi, **LÁ Gergely**, M Vasúth
Proceedings of the Eight Edoardo Amaldi Conference on Gravitational Waves (Amaldi8), New York, USA 2009, Eds. Sz Márka, Zs Márka
J. Phys.: Conf. Series (JPCS) **228**, 012053-1-8 (2010) [arXiv: 0911.0477 [gr-qc]]
[\[http://iopscience.iop.org/1742-6596/228/1/012053/pdf/1742-6596_228_1_012053.pdf\]](http://iopscience.iop.org/1742-6596/228/1/012053/pdf/1742-6596_228_1_012053.pdf)
- [83] *Recovering a spinning inspiralling compact binary waveform immersed in LIGO-like noise with spinning templates*
L Veréb, Z Keresztes, P Raffai, Sz Mészáros, **LÁ Gergely**
Proceedings of the Eight Edoardo Amaldi Conference on Gravitational Waves (Amaldi8), New York, USA 2009, Eds. Sz Márka, Zs Márka
J. Phys.: Conf. Series (JPCS) **228**, 012003-1-6 (2010) [arXiv: 0911.0473 [gr-qc]]
[\[http://iopscience.iop.org/1742-6596/228/1/012003/pdf/1742-6596_228_1_012003.pdf\]](http://iopscience.iop.org/1742-6596/228/1/012003/pdf/1742-6596_228_1_012003.pdf)
- [82] *Do supernovae favor tachyonic Big Brake instead of de Sitter?*
LÁ Gergely, Z Keresztes, AY Kamenshchik, V Gorini, U Moschella
Proceedings of the Invisible Universe International Conference, Paris, France 2009, Eds. JM Alimi, A Füzfa
AIP Conference Proceedings **1241**, 884-891 (2010) [arXiv: 0910.3887 [gr-qc]]
- [81] *Ultra High Energy Particles and Cosmic Ray Electrons/Positrons: from Massive Star Explosions*
PL Biermann, J Becker, L Caramete, **LÁ Gergely**, IC Mariş, A Meli, E-S Seo, V de Souza, T Stanev, O Taşcău
in *HIGHLIGHTS and CONCLUSIONS of the Chalonge 13th Paris Cosmology Colloquium: 'The Standard Model of the Universe: From Inflation to Today Dark Energy'*,
Ecole Internationale d'Astrophysique Daniel Chalonge, Observatoire de Paris, July 2009 by HJ de Vega, MC Falvella, NG Sanchez, p. 7 (2010) [arXiv: 1007.2846 [astro-ph.CO]]
- [80] *Active Galactic Nuclei: Sources for Ultra High Energy Cosmic Rays.* **IF = 1.046**
PL Biermann, JK Becker, L Caramete, **LÁ Gergely**, IC Mariş, A Meli, V de Souza, T Stanev
Proceedings of High-Energy Gamma-rays and Neutrinos from Extra-Galactic Sources,
Heidelberg, 2009, Eds. E Resconi, F Aharonian
Int. J. Mod. Phys. D **18** (10) 1577-1581 (2009) [arXiv: 0904.1507 [astro-ph.HE]]
- [79] *Renormalized spin coefficients in the accumulated orbital phase for unequal mass black hole binaries.* **IF = 3.029**
LÁ Gergely, PL Biermann, B Mikóczi, Z Keresztes
Proceedings of the Gravitational Wave Data Analysis Workshop GWDAW13, San Juan, Puerto Rico, 2009, Eds. MC Diaz, FA Jenet and SD Mohanty.
Class. Quantum Grav. **26**, 204006-1-10 (2009) [arXiv: 0909.0487 [gr-qc]]
- [78] *Second-order light deflection by tidal charged black holes on the brane* **IF = 3.029**
LÁ Gergely, Z Keresztes, M Dwornik
Class. Quantum Grav. **26**, 145002-1-11 (2009) [arXiv: 0903.1558 [gr-qc]]
- [77] *Tachyon cosmology, supernovae data and the Big Brake singularity* **IF = 4.922**
Z Keresztes, **LÁ Gergely**, V Gorini, U Moschella, AY Kamenshchik
Phys. Rev. D **79**, 083504-1-8 (2009) [arXiv: 0901.2292 [gr-qc]]
- [76] *Eötvös branes* **IF = 4.922**
LÁ Gergely
Phys. Rev. D **79**, 086007-1-6 (2009) [arXiv: 0806.4006 [gr-qc]]
- [75] *Renormalized 2PN spin contributions to the accumulated orbital phase for LISA sources* **IF = 4.922**
LÁ Gergely, B Mikóczi
Phys. Rev. D **79**, 064023-1-11 (2009) [arXiv: 0808.1704 [gr-qc]]
related EPAPS material (animated gifs): [http://ftp.aip.org/epaps/phys_rev_d/E-PRVDAQ-79-049906/]
- [74] *The spin-flip phenomenon in supermassive black hole binary mergers* **IF = 7.364**
LÁ Gergely, PL Biermann

- Astrophys. J.* **697**, 1621-1633 (2009) [arXiv:0704.1968 [astro-ph]]
- [73] *Active Galactic Nuclei: Sources for ultra high energy cosmic rays?*
 PL Biermann, JK Becker, L Caramete, A Curutiu, R Engel, H Falcke, **LÁ Gergely**, PG Isar, IC Mariş, A Meli, K-H Kampert, T Stanev, O Taşcau, C Zier
 Invited review in the *Proceedings of the CRIS 2008 – Cosmic Ray International Seminar: Origin, Mass, Composition and Acceleration Mechanisms of UHECRs*, Malfa, Italy 2008, Ed. A Insolia
Nucl. Phys. B, Proc. Suppl. **190** 61-78 (2009) [arXiv:0811.1848 [astro-ph]]
- [72] *Friedmann branes with variable tension* **IF=5.050**
LÁ Gergely
Phys. Rev. D **78**, 084006-1-12 (2008) [arXiv:0806.3857 [gr-qc]]
- [71] *On the validity of the 5-dimensional Birkhoff theorem: The tale of an exceptional case*
 Z Keresztes, **LÁ Gergely** **IF=3.035**
Class. Quantum Grav. **25**, 165016-1-12 (2008) [arXiv:0712.3758 [gr-qc]]
- [70] *Viscous dissipative Chaplygin gas dominated homogeneous and isotropic cosmological models*
 CSJ Pun, **LÁ Gergely**, MK Mak, Z Kovács, GM Szabó, T Harko **IF=5.050**
Phys. Rev. D **77**, 063528-1-11 (2008) [arXiv:0801.2008 [gr-qc]]
- [69] *Gravitational dynamics in $s+1+1$ dimensions II. Hamiltonian theory* **IF=5.050**
 Z Kovács, **LÁ Gergely**
Phys. Rev. D **77**, 024003-1-13 (2008) [arXiv:0709.2131 [gr-qc]]
- [68] *Is dark matter futile on the brane?*
LÁ Gergely [gr-qc/0612163]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 997-999 (2008)
- [67] *Hamiltonian theory of brane-world gravity*
 Z Kovács, **LÁ Gergely** [gr-qc/0612050]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 1290-1292 (2008)
- [66] *Canonical analysis of equilibrium stellar atmospheres*
 Z Kovács, **LÁ Gergely**, Z. Horváth [gr-qc/0612052]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 2302-2304 (2008)
- [65] *Orbital phase in inspiraling compact binaries*
 M Vasúth, B Mikóczi, **LÁ Gergely** [gr-qc/0703054]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 2497-2499 (2008)
- [64] *The second post-Newtonian order generalized Kepler equation*
LÁ Gergely, Z Keresztes, B Mikóczi [gr-qc/0612086]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 2503-2505 (2008)
- [63] *Black holes on cosmological branes*
LÁ Gergely [gr-qc/0703051]
Proceedings of the Eleventh Marcel Grossmann Meeting, Berlin, Germany 2006, Eds. H Kleinert, RT Jantzen and R Ruffini, *World Scientific*, Singapore, p. 2815-2817 (2008)
- [62] *Supermassive binary black hole mergers*
LÁ Gergely, PL Biermann [arXiv:0805.4582 [astro-ph]]
Proceedings of the Seventh Edoardo Amaldi Conference on Gravitational Waves (Amaldi7), Sydney, Australia 2007, Eds. SM Scott and DE McClelland,
J. Phys.: Conf. Series (JPCS) **122**, 012040-1-7 (2008)
[http://www.iop.org/EJ/article/1742-6596/122/1/012040/jpconf8_122_012040.pdf?request-id=9b2bfde3-af3a-42f2-aae5-c5b7a45708f2]
- [61] *The luminosity-redshift relation in brane-worlds: II. Confrontation with observational data*

- GM Szabó, **LÁ Gergely**, Z Keresztes [astro-ph/0702610] **open access**
 PMC Physics A **1** : 8-1-18 (2007) [<http://www.physmathcentral.com/content/pdf/1754-0410-1-8.pdf>]
- [60] *The luminosity-redshift relation in brane-worlds: I. Analytical results* **open access**
 Z Keresztes, **LÁ Gergely**, B Nagy, GM Szabó [astro-ph/0606698]
 PMC Physics A **1** : 4-1-24 (2007) [<http://www.physmathcentral.com/content/pdf/1754-0410-1-4.pdf>]
- [59] *Asymmetric Swiss-cheese brane-worlds* **IF=6.067**
LÁ Gergely, I Képiró
 J. Cosmol. Astropart. Phys. JCAP **07** (07), 007-1-20 (2007) [hep-th/0608195]
- [58] *Black holes and dark energy from gravitational collapse on the brane* **IF=6.067**
LÁ Gergely
 J. Cosmol. Astropart. Phys. JCAP **07** (02), 027-1-15 (2007) [hep-th/0603254]
- [57] *Cosmological tests of generalized RS brane-worlds with Weyl fluid*
LÁ Gergely, Z Keresztes, GM Szabó
Particles, Strings and Cosmology, Proceedings of the 13th International Symposium (PASCOS 2007), London, UK 2007, Eds. A Rajantie, P Dauncey, C Contaldi, H Stoica,
 AIP Conference Proceedings **957**, 391-396 (2007) [arXiv:0709.0933 [astro-ph]]
- [56] *The order of the Universe – in Hungarian*
LÁ Gergely
 in *170 years: from the Roman Catholic Gymnasium to the Lajos Áprily Gymnasium*, Eds. J Papp, P Petki, Braşov (2007) p.66-68
[http://www.aprilyfogimnazium.ro/Upload/CM/Files/Kiadvanyok/170_Ev.pdf]
 Shortened version in:
Brassói Lapok, **IV/906** A4 (2007)
- [55] *In memoriam Zoltán Perjés (1943-2004) – in Hungarian*
 P Forgács, C Hoenselaers, P Tod, G Fodor, M Vasúth, **LÁ Gergely**
Fizikai Szemle, **2007/1** 14-17 (2007)
- [54] *An efficient method for the evaluation of secular effects in the perturbed Keplerian motion* **IF=8.627**
LÁ Gergely, Z Keresztes, B Mikóczi
Astrophys. J. Suppl. Series **167**, 286-291 (2006) [astro-ph/0603677]
- [53] *Geometrodynamics in a static, spherically symmetric crossflow of null dust* **IF=4.896**
 Z Horváth, Z Kovács, **LÁ Gergely**
Phys. Rev. D **74**, 084034-1-12 (2006) [gr-qc/0605116]
- [52] *Brane-world cosmology with black strings* **IF=4.896**
LÁ Gergely
Phys. Rev. D **74**, 024002-1-6 (2006) [hep-th/0603244]
- [51] *Semi-transparent brane-worlds* **IF=6.175**
 Z Keresztes, I Képiró, **LÁ Gergely**
 J. Cosmol. Astropart. Phys. JCAP **06** (05), 020-1-12 (2006) [hep-th/0603223]
- [50] *Irradiated asymmetric Friedmann branes* **IF=6.175**
LÁ Gergely, Z Keresztes
 J. Cosmol. Astropart. Phys. JCAP **06** (01), 022-1-22 (2006) [hep-th/0601217]
- [49] *Dark energy from gravitational collapse?*
LÁ Gergely [gr-qc/0606073]
 Honorable Mention in the Gravity Research Foundation's 2006 Essays in Gravitation
 Competition (2006) [<http://www.gravityresearchfoundation.org/pdf/abstracts/2006abstracts.pdf>]
- [48] *New variables for brane-world gravity*
 Z Kovács, **LÁ Gergely** [hep-th/0603178]
Proceedings of the Albert Einstein Century International Conference, Paris, France 2005, Eds. J-M Alimi and A Füzfa,
 AIP Conference Proceedings **861**, 897-902 (2006)

- [47] *Weak gravitational lensing in brane-worlds*
LÁ Gergely, B Darázs [astro-ph/0602427]
Proceedings of the 4th Workshop of Young Researchers in Astronomy & Astrophysics, Budapest, Hungary 2006, Ed. E Forgács-Dajka,
Publ. Astron. Dept. Eötvös Univ. PADEU **17**, 213-219 (2006)
- [46] *The Kepler equation for inspiralling compact binaries* **IF=4.852**
Z Keresztes, B Mikóczi, **LÁ Gergely**
Phys. Rev. D **72**, 104022-1-7 (2005) [astro-ph/0510602]
- [45] *Gravitational dynamics in $s+1+1$ dimensions* **IF=4.852**
LÁ Gergely, Z Kovács
Phys. Rev. D **72**, 064015-1-12 (2005) [gr-qc/0507020]
- [44] *Self-interaction spin effects in inspiralling compact binaries* **IF=4.852**
B Mikóczi, M Vasúth, **LÁ Gergely**
Phys. Rev. D **71**, 124043-1-6 (2005) [astro-ph/0504538]
- [43] *No Swiss-cheese universe on the brane* **IF=4.852**
LÁ Gergely
Phys. Rev. D **71**, 084017-1-5 (2005), *Erratum:* **72**, 069902-1 (2005) [gr-qc/0407010]
- [42] *Asymmetric brane-worlds with induced gravity* **IF=4.852**
LÁ Gergely, R Maartens
Phys. Rev. D **71**, 024032-1-7 (2005) [gr-qc/0411097] [preprint ICG 04/44]
- [41] *Asymmetric radiating Friedmann branes* **IF=5.156**
LÁ Gergely, E Leeper, R Maartens
Phys. Rev. D **70**, 104025-1-5 (2004) [gr-qc/0408084] [preprint ICG 04/31]
- [40] *A homogeneous brane-world universe* **IF=2.941**
LÁ Gergely
Class. Quantum Grav. **21**, 935-940 (2004) [gr-qc/0309059] [preprint ICG 03/39]
- [39] *Generalized Friedmann branes* **IF=4.599**
LÁ Gergely
Phys. Rev. D **68**, 124011-1-13 (2003) [gr-qc/0308072] [preprint ICG 03/30]
- [38] *Gravitational radiation reaction in compact binary systems: Contribution of the magnetic dipole - magnetic dipole interaction* **IF=4.599**
M Vasúth, A Mihály, Z Keresztes, **LÁ Gergely**
Phys. Rev. D **68**, 124006-1-8 (2003) [gr-qc/0308051] [preprint ICG 03/29]
- [37] *Gravitational radiation reaction in compact binary systems: Contribution of the quadrupole - monopole interaction* **IF=4.599**
LÁ Gergely, Z Keresztes
Phys. Rev. D **67**, 024020-1-7 (2003) [gr-qc/0211027]
- [36] *Wormholes, naked singularities and universes of ghost radiation* **IF=4.358**
LÁ Gergely
Phys. Rev. D **65**, 127503-1-4 (2002) [gr-qc/0204016]
- [35] *On Hamiltonian formulations of the Schrödinger system* **IF=2.014**
LÁ Gergely
Annals of Physics **298**, 394-402 (2002) [hep-th/0301052]
- [34] *Linear Einstein equations and Kerr-Schild maps* **IF=2.107**
LÁ Gergely
Class. Quantum Grav. **19**, 2515-2523 (2002) [gr-qc/0203101]
- [33] *Brane-world generalizations of the Einstein static universe* **IF=2.107**
LÁ Gergely, R Maartens
Class. Quantum Grav. **19**, 213-221 (2002) [gr-qc/0105058] [preprint RCG 01/16]

- [32] *Generalized true- and eccentric-anomaly parametrizations for the perturbed Kepler motion*
LÁ Gergely, Z Perjés, M Vasúth
 [gr-qc/0701151]
Proceedings of the Ninth Marcel Grossmann Meeting 2000 on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Field Theories, Rome, Italy 2000, Eds. VG Gurzadyan, RT Jantzen and R Ruffini, World Scientific, Singapore, p.1751-1753 (2002)
- [31] *The geometry of the Barbour-Bertotti theories II. The three body problem* **IF=1.989**
LÁ Gergely, M McKain
Class. Quantum Grav. **17**, 1963-1978 (2000) [gr-qc/0003065]
- [30] *The geometry of the Barbour-Bertotti theories I. The reduction process* **IF=1.989**
LÁ Gergely
Class. Quantum Grav. **17**, 1949-1962 (2000) [gr-qc/0003064]
- [29] *Second post-Newtonian radiative evolution of the relative orientations of angular momenta in spinning compact binaries* **IF=3.838**
LÁ Gergely
Phys. Rev. D **62**, 024007-1-6 (2000) [gr-qc/0003037]
- [28] *Spin-spin effects in radiating compact binaries* **IF=3.838**
LÁ Gergely
Phys. Rev. D **61**, 024035-1-9 (2000) [gr-qc/9911082]
- [27] *The true and eccentric anomaly parametrizations of the perturbed Kepler motion* **IF=3.475**
LÁ Gergely, Z Perjés, M Vasúth
Astrophys. J. Suppl. Series **126**, 79-84 (2000) [gr-qc/9908015]
- [26] *Spin effects in gravitational radiation back reaction* **IF=0.699**
LÁ Gergely, Z Perjés, M Vasúth
Proceedings of the XIXth Texas Symposium on Relativistic Astrophysics and Cosmology, Paris, France 1998, Eds. É Aubourg, T Montmerle, J Paul and P Peter,
Nucl. Phys. B Proc. Suppl. **80** CD-ROM 07/07 (2000)
- [25] *Spherically symmetric static solution for colliding null dust streams* **IF=0.699**
LÁ Gergely
Proceedings of the XIXth Texas Symposium on Relativistic Astrophysics and Cosmology, Paris, France 1998, Eds. É Aubourg, T Montmerle, J Paul and P Peter,
Nucl. Phys. B Proc. Suppl. **80** CD-ROM 12/10 (2000)
- [24] *A rotating incompressible perfect fluid space-time as source for the NUT metric* **IF=0.699**
LÁ Gergely, Z Perjés, G Fodor, M Marklund
Proceedings of the XIXth Texas Symposium on Relativistic Astrophysics and Cosmology, Paris, France 1998, Eds. É Aubourg, T Montmerle, J Paul and P Peter,
Nucl. Phys. B Proc. Suppl. **80** CD-ROM 12/11 (2000)
 Preliminary version as:
A rotating incompressible perfect fluid space-time [gr-qc/9806095]
 Z Perjés, G Fodor, **LÁ Gergely**, M Marklund
- [23] *Spherically symmetric closed universe as an example of a 2D dilatonic model* **IF=3.695**
LÁ Gergely
Phys. Rev. D **59**, 104014-1-4 (1999) [gr-qc/9902016]
- [22] *Rotating perfect fluid sources of the NUT metric* **IF=2.046**
 M Bradley, G Fodor, **LÁ Gergely**, M Marklund, Z Perjés
Class. Quantum Grav. **16**, 1667-1675 (1999) [gr-qc/9807058]
(Selected into Highlights of 1999 and 2000)
- [21] *Comment on "The complete Schwarzschild interior and exterior solution in the harmonic coordinate system" [J. Math. Phys. 39, 6086 (1998)]* **IF=0.975**
LÁ Gergely

- J. Math. Phys. **40**, 4177-4178 (1999) [arXiv:0712.3749 [gr-qc]]
- [20] *Colliding spherically symmetric null dust in equilibrium*
LÁ Gergely [gr-qc/9811054]
Relativity and Gravitation in General, Proceedings of the ERES98 Meeting, Salamanca, Spain 1998, Eds. J Martin, E Ruiz, F Atrio and A Molina, World Scientific, Singapore, p.251-254 (1999)
- [19] *Rotating incompressible perfect fluid source of the NUT metric*
LÁ Gergely, Z Perjés, G Fodor [gr-qc/9811056]
Relativity and Gravitation in General, Proceedings of the ERES98 Meeting, Salamanca, Spain 1998, Eds. J Martin, E Ruiz, F Atrio and A Molina, World Scientific, Singapore, p.255-258 (1999)
- [18] *Spin effects in radiating compact binaries*
LÁ Gergely, Z Perjés, M Vasúth [gr-qc/9811055]
Relativity and Gravitation in General, Proceedings of the ERES98 Meeting, Salamanca, Spain 1998, Eds. J Martin, E Ruiz, F Atrio and A Molina, World Scientific, Singapore, p.259-262 (1999)
- [17] *Radiation back reaction on spinning binaries*
LÁ Gergely, Z Perjés, M Vasúth [gr-qc/9801002]
Proceedings of the Eight Marcel Grossmann Meeting, Jerusalem, Israel 1997, Ed. T Piran, Series Ed. R Ruffini, World Scientific, Singapore, p.1098-1100 (1999)
- [16] *Spin effects in gravitational radiation back reaction III. Compact binaries with two spinning components* **IF=3.854**
LÁ Gergely, Z Perjés, M Vasúth
Phys. Rev. D **58**, 124001-1-9 (1998) [gr-qc/9808063]
- [15] *Spherically symmetric static solution for colliding null dust* **IF=3.854**
LÁ Gergely
Phys. Rev. D **58**, 084030-1-9 (1998) [gr-qc/9809024]
- [14] *Spin effects in gravitational radiation back reaction II. Finite mass effects* **IF=3.854**
LÁ Gergely, Z Perjés, M Vasúth
Phys. Rev. D **57**, 3423-3432 (1998) [gr-qc/9801031]
- [13] *Spin effects in gravitational radiation back reaction I. The Lense-Thirring approximation*
LÁ Gergely, Z Perjés, M Vasúth **IF=3.854**
Phys. Rev. D **57**, 876-884 (1998) [gr-qc/9710063]
- [12] *The evolution of radiating debris trapped by a black hole*
LÁ Gergely, Z Perjés
Proceedings of the International Conference on Gravitational Waves: Sources and Detectors, Cascina (Pisa), Italy 1996, Edoardo Amaldi Foundation Series vol. 2, Eds. I Ciufolini and F Fiducaro, World Scientific, Singapore, p.41-43 (1997)
- [11] *Theory of systems with constraints II. Parametric theories – in Hungarian*
LÁ Gergely
Booklets in Theoretical Physics III/5, Ed. I Gyémánt, JATE Univ. Szeged (1996)
- [10] *Theory of systems with constraints I. The general theory – in Hungarian*
LÁ Gergely
Booklets in Theoretical Physics II/2, Ed. I Gyémánt, JATE Univ. Szeged (1996)
- [9] *Vacuum-vacuum Kerr-Schild maps – in Hungarian*
LÁ Gergely
 PhD in Physics (C. Sci.) – Hungarian Academy of Sciences. Supervisor: Z Perjés (1994)
- [8] *Vacuum Kerr-Schild metrics generated by nontwisting congruences* **IF=1.147**
LÁ Gergely, Z Perjés
Ann. Physik **3**, 609-619 (1994) [gr-qc/0203091]
- [7] *Kerr-Schild metrics revisited II. The complete vacuum solution* **IF=0.969**
LÁ Gergely, Z Perjés

- J. Math. Phys.* **35**, 2448-2462 (1994) [gr-qc/0203090]
 Preliminary version as:
Kerr-Schild metrics revisited II. The homogeneous integrals
LÁ Gergely, Z Perjés [preprint KFKI-1993-09/B]
- [6] *Kerr-Schild metrics revisited I. The ground state* **IF=0.969**
LÁ Gergely, Z Perjés
J. Math. Phys. **35**, 2438-2447 (1994) [gr-qc/0203088] [preprint KFKI-1993-07/B]
- [5] *Solution of the vacuum Kerr-Schild problem* **IF=1.149**
LÁ Gergely, Z Perjés
Phys. Lett. A **181**, 345-348 (1993) [gr-qc/0203087]
- [4] *Our environment, the changing Universe – in Hungarian*
LÁ Gergely
A Hét: TETT 1989/2, 52-56, Bucharest (1989)
- [3] *Local inertial systems in general relativity – in Romanian*
LÁ Gergely
 MSc in Physics - Faculty of Physics, Univ. of Bucharest. Supervisor: M Vişinescu (1988)
- [2] *Space-time and gauge symmetries in the fundamental interactions – in Romanian*
LÁ Gergely
 BSc in Physics - Faculty of Physics, University of Bucharest. Supervisor: M Vişinescu (1987)
- [1] *Inertial transformations of the basic equations of physics – in Hungarian*
LÁ Gergely
 Student research thesis - Faculty of Physics, University of Bucharest (1986)

CONFERENCE ABSTRACTS IN ABSTRACT BOOKS

- [A9] *Testing general relativity with laser accelerated electron beams*
LÁ Gergely, T Harko
Light at Extreme Intensities, Book of Abstracts, LEI 2011, Szeged, Hungary, p. 19. (2011)
- [A8] *Coalescing supermassive black hole binaries and their gravitational radiation: The birth of X-shaped radio galaxies*
LÁ Gergely
Program book of the Roland Eötvös Physical Society Meeting “New Trends in Physics”, University of Pécs, Hungary (2010)
- [A7] *Generalized Randall-Sundrum brane-worlds with Weyl fluid tested by supernova data*
LÁ Gergely, Z Keresztes, GM Szabó
Program book of the 29th WE-Heraeus-Seminar: Cosmology of Fundamental Interactions, Bad Honnef, Germany (2007)
- [A6] *Cosmological tests of the generalized Randall-Sundrum brane-world model with late-time dark radiation*
LÁ Gergely, Z Keresztes, GM Szabó
Abstract book of the 18th International Conference on General Relativity and Gravitation (GRG18) and of the 7th Edoardo Amaldi Conference on Gravitational Waves (Amaldi7), Sydney, Australia, p. 28 (2007)
- [A5] *The evolution of gravitational wave frequency until the final coalescence of compact binaries*
LÁ Gergely
11th Canadian Conference on General Relativity and Relativistic Astrophysics, Conference guide, University of British Columbia May 19-21, 2005, conference organizers K Schleich and D Witt. Pacific Institute for the Mathematical Sciences / Pacific Institute for Theoretical Physics p.1. (2005)
- [A4] *Asymmetric Friedmann branes*
LÁ Gergely

Book of Abstracts of the 17th International Conference on General Relativity and Gravitation, RDS, Dublin, Ireland, p. 258-259 (2004)

[A3] *Orbital evolution of compact binaries to 2PN order*

LÁ Gergely

Book of Abstracts of the 17th International Conference on General Relativity and Gravitation, RDS, Dublin, Ireland, p. 69 (2004)

[A2] *Gravitation in 5 dimensions*

LÁ Gergely

Abstracts of the János Bolyai Conference on Hyperbolic Geometry. Scientific organizers A Prékopa and K Bezdek, Hungarian Academy of Sciences, Ministry of Education, Ministry of Cultural Heritage, p. 29 (2002)

[A1] *The Kerr-Schild metrics revisited*

LÁ Gergely, Z Perjés

Abstracts of Invited Papers in the Plenary and Workshop Sessions at the *International Symposium of Directions in General Relativity in celebration of the sixtieth birthdays of Professors Dieter Brill and Charles Misner*. University of Maryland (1993)