

# Péter I. PÁPICS

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## CONTACT INFORMATION

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## PERSONAL INFORMATION

*Nationality:* Hungarian  
*Date of birth:* 01/02/1985  
*Gender:* Male  
*Marital status:* Single

## EDUCATION

**Katholieke Universiteit Leuven** (Faculty of Science)  
Celestijnenlaan 200D BUS 2401, Leuven, B-3001

PhD in Astronomy and Astrophysics at the Institute of Astronomy (2009–2013)

- Supervisor: Professor Dr. Conny Aerts
- Research Field: Core overshooting and rotation inside massive stars

**Eötvös Loránd University** (Faculty of Science)  
Pázmány Péter sétány 1/A, Budapest, H-1117

M.S. (2003–2009) in Astronomy

- Grade of diploma: MSc with Distinction (24 June 2009)
- Thesis Topic: GD 244 – Asteroseismological study of a DA White Dwarf
- Supervisor: Professor Dr. Margit Páparó
- Main Areas of Study: Astrophysics (6 semesters), Celestial Mechanics (6), Galactic Astronomy (4), Observational Astronomy (4), Spectroscopy (2), Classical and Theoretical Physics (4+6), Mathematics and Statistics (4+2), Informatics, Astronomy of Variable Stars, etc.

**Katholieke Universiteit Leuven** (Faculty of Science)  
Celestijnenlaan 200D BUS 2401, Leuven, B-3001

One semester (2007–2008) at the Institute of Astronomy (ERASMUS Exchange Program)

- Contact Person: Professor Dr. Conny Aerts
- Area of Study: Asteroseismology, Milky Way Galaxy, Solar Physics

**Németh László Experimental Eight-Grade High School**  
Nóvér utca 15–17, Budapest, H-1131

Advanced secondary school education (1995–2003)

- Special Areas of Study: Advanced Mathematics and Physics, Latin language along with Greek and Roman Culture

## AWARDS

Eötvös Loránd University

- Outstanding Student of the Faculty of Sciences, 2008
- First prize at the XXVIII. National Scientific Conference for Students, Astrophysics Section, Szeged, 2007
- Second prize at the Scientific Conference for Students at the Department of Astronomy, 2006
- Fellowship of The Republic of Hungary (awarded by the Ministry of Education and Culture), 2006–2007

RESEARCH  
EXPERIENCE

**Katholieke Universiteit Leuven** (Faculty of Science)  
Celestijnenlaan 200D BUS 2401, Leuven, B-3001

*PhD Student at the Institute of Astronomy*

**From September 2009**

- Research in the framework of the ERC funded PROSPERITY Project  
*Main activities and responsibilities:* Probing stellar physics and testing stellar evolution through asteroseismology. I am working on the core overshooting and the rotation inside massive stars (using high-resolution spectroscopy and space-based photometry).
- Observer  
*Main activities and responsibilities:* As part of the PhD, I spent 44 nights (of which 42 was clear) at the 1.2 meter Mercator Telescope on La Palma, working with HERMES and MEROPE, and 12 nights (9 clear) at the IAC-80 Telescope on Tenerife, working with CAMELOT.

**Konkoly Observatory of the Hungarian Academy of Sciences**

Konkoly Thege út 15–17, Budapest, H-1121

*Undergraduate Researcher*

**February 2008 to August 2008**

- CoRoT Research Team Fellow  
*Main activities and responsibilities:* Photometry of CoRoT target stars using the 1 meter RCC telescope at Piskéstető, the Mountain Station of the Konkoly Observatory of the Hungarian Academy of Sciences. Reduction, evaluation and analysis of data from the CoRoT space telescope and the 1 meter RCC telescope.
- Observer  
*Main activities and responsibilities:* Besides BVRI photometry of CoRoT targets, I have also participated in Whole Earth Telescope XCOV26 Campaign. I spent a total of 64 nights (47 clear) at the 1 meter RCC telescope on Piskéstető (including observations for the PiStA group – see below).

*Undergraduate Student*

**November 2005 to August 2009**

- Participating (from the establishment to the end) in the **Piskés Students' Astronomy Group, PiStA** (This was a research group of undergraduate students observing mainly White Dwarf stars.)  
*Main activities and responsibilities:* coordination of observations and data reduction, telescope-time allocation among the students, and managing the website of PiStA. I spent the highest number of nights observing at Piskéstető Mountain Station. Our (co-author: L. Molnár) preliminary results on GD 154 were presented on the XXVIII. National Scientific Conference for Students in the Astrophysics Section (first prize awarded).
- M.S. thesis work

PUBLICATIONS

R. H. Østensen, P. I. Pápics, R. Oreiro, M. D. Reed, A. C. Quint, J. T. Gilker, L. L. Hicks, A. S. Baran, L. Fox Machado, T. A. Ottosen, J. H. Telting: "GALEX J201337.6+092801: The Lowest Gravity Subdwarf B Pulsator", *The Astrophysical Journal Letters*, **731**, Issue 1, L13 (2011)

P. I. Pápics, M. Briquet, M. Auvergne, C. Aerts, P. Degroote, E. Niemczura, M. Vučković, K. Smolders, E. Poretti, M. Rainer, M. Hareter, A. Baglin, F. Baudin, C. Catala, E. Michel, and R. Samadi: "CoRoT high-precision photometry of the B0.5 IV star HD 51756", *Astronomy & Astrophysics*, **528**, A123 (2011)

V. A. Jacobs, R. H. Østensen, H. van Winckel, S. Bloemen, P. I. Pápics, G. Raskin, J. Debosscher, S. Uttenthaler, E. van Aarle, C. Waelkens, E. Bauwens, T. Verhoelst, C. Gielen, H. Lehmann, R. Oreiro: "HERMES High-Resolution Spectroscopy of HD 149382—Where Did the Planet Go?", *PLANETARY SYSTEMS BEYOND THE*

*MAIN SEQUENCE: Proceedings of the International Conference. AIP Conference Proceedings*, **1331**, 304-309 (2011)

M. Jelinek, C. Zurita, M. Visus, P. Papics, P. Kubanek, L. Sabau-Graziati, A. de Ugarte Postigo, R. Cunniffe, J. Gorosabel, A. J. Castro-Tirado: "GRB 100925A / MAXI J1659-152: BOOTES-2/TELMA and IAC80 optical observations", *GRB Coordinates Network, Circular Service*, **11301**, 1 (2010).

A. Baran, J. Telting, R. Østensen, M. Winiarski, M. Drożdż, D. Koziel, M. Reed, R. Oreiro, R. Silvotti, M. Siwak, U. Heber, P. Papics: "Constraining the degree of the dominant mode in QQ Vir", *Astrophysics and Space Science*, **329**, 199-203 (2010).

S. Schuh, R. Silvotti, R. Lutz, B. Loeptien, E. M. Green, R. H. Østensen, S. Leccia, S.-L. Kim, G. Fontaine, S. Charpinet, M. Francœur, S. Randall, C. Rodríguez-López, V. van Grootel, A. P. Odell, M. Páparó, Zs. Bognár, P. Pápics, T. Nagel, B. Beeck, M. Hundertmark, T. Stahn, S. Dreizler, F. V. Hessman, M. Dall'Orta, D. Mancini, F. Cortecchia, S. Benatti, R. Claudi, R. Janulis: "EXOTIME: searching for planets around pulsating subdwarf B stars", *Astrophysics and Space Science*, **329**, 231-242 (2010).

E. Poretti, E. Michel, R. Garrido, L. Lefevre, L. Mantegazza, M. Rainer, E. Rodriguez, K. Uytterhoeven, P.J. Amado, S. Martin-Ruiz, A. Moya, E. Niemczura, J.C. Suarez, W. Zima, A. Baglin, M. Auvergne, F. Baudin, C. Catala, R. Samadi, M. Alvarez, P. Mathias, M. Paparo, P. Papics, E. Plachy: "HD 50844: a new look at  $\delta$  Scuti stars from CoRoT space photometry", *Astronomy & Astrophysics*, **506**, 85-93 (2009)

E. Poretti, L. Mantegazza, M. Rainer, K. Uytterhoeven, E. Michel, A. Baglin, M. Auvergne, C. Catala, R. Samadi, E. Rodriguez, R. Garrido, P. Amado, S. Martin-Ruiz, A. Moya, C. Suarez, F. Baudin, W. Zima, M. Alvarez, P. Mathias, M. Paparo, P. Papics, E. Plachy: "The tip of the iceberg: the frequency content of the  $\delta$  Sct star HD 50844 from CoRoT space photometry", *STELLAR PULSATION: CHALLENGES FOR THEORY AND OBSERVATION: Proceedings of the International Conference. AIP Conference Proceedings*, **1170**, 435-439 (2009).

J. L. Provencal, S. Thompson, M. Montgomery, A. Kanaan, H. L. Shipman, J. D'Allesio, D. Childers, C. Clemens, R. Rosen, P. Henrique, A. Kim, W. Strickland, D. Chandler, B. Walter, T. K. Watson, B. Castanheira, M. Wood, S. Vennes, S. O. Kepler, M. Reed, A. Nitta, S. J. Kleinman, T. Brown, S.-L. Kim, D. Sullivan, Wen-Ping Chen, M. Yang, Chia-You Shih, X. J. Jiang, A. V. Sergeev, A. Maksim, R. Janulis, H. O. Vats, K. S. Baliyan, S. Zola, A. Baran, M. Winiarski, W. Ogloza, M. Paparo, Z. Bognar, P. Papics, D. Kilkenny, R. Sefako, D. Buckley, N. Loring, A. Kniazev, R. Silvotti, S. Galletti, G. Handler, T. Nagel, G. Vauclair, N. Dolez, J. R. Fremy, J. Perez, J. M. Almenara, L. Fraga: "Preliminary XCOV26 results for EC14012-1446", *Journal of Physics: Conference Series* **172**, Issue 1, pp. 012061 (2009)

M. Páparó, E. Plachy, L. Molnár, P. I. Pápics, Zs. Bognár, N. Sztankó, Gy. Kerekes, A. Már, E. Bokor: "Preliminary Results in White Dwarf Research by a New Group", *Communications in Asteroseismology* **154**, 59-69 (2008)

Zs. Bognár, M. Páparó, A. Már, Gy. Kerekes, P. Pápics, L. Molnár, E. Plachy, N. Sztankó, E. Bokor: "More frequencies of KUV 02464+3239", *Astronomische Nachrichten* **328**, No. 8, 845-847 (2007)

CONFERENCES  
AND WORKSHOPS

P. I. Pápics, M. Briquet, E. Poretti, C. Aerts, P. Degroote, A. Tkatschenko, T. Morel, W. Zima, M. Rainer, M. Hareter, A. Baglin, F. Baudin, C. Catala, E. Michel, R. Samadi, and M. Auvergne: "An asteroseismic study of the B3 IV star HD 43317 – interpretation of the CoRoT photometry and of ground-based high-resolution spectroscopy", an oral presentation at: 2nd CoRoT Symposium, Marseille, France (14–17 June 2011)

P. I. Pápics, M. Briquet, M. Auvergne, C. Aerts, P. Degroote, E. Niemczura, M. Vučković, K. Smolders, E. Poretti, M. Rainer, M. Hareter, A. Baglin, F. Baudin, C. Catala, E. Michel, and R. Samadi: "CoRoT high-precision photometry of the B0.5 IV star HD 51756", a poster at: XXII Canary Islands Winter School of Astrophysics, La Laguna, Tenerife, Spain (15–26 November 2010)

V. A. Jacobs, R. H. Østensen, H. Van Winckel, S. Bloemen, P. I. Pápics, G. Raskin, H. Lehmann, R. Oreiro, J. Debosscher, S. Uttenthaler, E. Van Aarle, C. Waelkens, E. Bauwens, T. Verhoelst, C. Gielen: "HERMES high-resolution spectroscopy of HD 149382 – Where did the planet go?", a poster at: Planetary Systems beyond the Main Sequence, Bamberg, Germany (11–14 August 2010)

Participant at: Third Kepler Asteroseismology Workshop, "Kepler Asteroseismology in Action", Aarhus, Denmark (14–18 June 2010)

E. Poretti, E. Michel, R. Garrido, L. Lefevre, L. Mantegazza, M. Rainer, E. Rodriguez, W. Zima, A. Baglin, M. Auvergne, C. Catala, R. Samadi, F. Baudin, P. Amado, S. Martin-Ruiz, M. Paparo, P. Pápics, M. Alvarez, K. Uytterhoeven, et al.: "HD 50844: A New Look to Delta Scuti Stars from Space", an oral communication at: First CoRoT International Symposium, Paris, France (2–5 February 2009)

M. Paparó, Zs. Bognár, P. Pápics: "Nonlinearity in the white dwarf, GD 154", a poster at: HELAS Workshop, Wroclaw, Poland (23–27 June 2008)

Zs. Bognár, M. Paparó, A. Már, Gy. Kerekes, P. Pápics, L. Molnár, E. Plachy, N. Sztankó, E. Bokor: "More frequencies of KUV 02464+3239", a poster at: N+N+N Workshop, Budapest, Hungary (15–17 January 2007)

P. Pápics: "Frequency content of HD 50844", a talk at: Hungarian CoRoT Day, Budapest, Hungary (12 March 2007)

M. Paparó, Zs. Bognár, K. Sárneczky, E. Bokor, Gy. Kerekes, A. Már, L. Molnár, P. Pápics, E. Plachy, Z. Csubry: "Hungarian contribution to the first winter seismo targets", a poster at: 10th Corot Week, Nice, France (5–9 June 2006)

OTHER  
PUBLICATIONS

See the end of the CV for a detailed list of additional publications and presentations mainly in the field of popular science.

LANGUAGES

*Mother tongue:* Hungarian  
*Other language(s):* English (fluent, C1)  
French (very basic, A1)

SOCIAL SKILLS

Good ability to adapt to colleagues and team mates in different working and social environments (gained through working in research groups and participating in sport teams). Committed to personal and team goals, good team player. Good communication skills gained through presentations of results from research work and through popular science talks.

Project management experiences gained through directing and co-ordinating young scientific research groups and sport teams.

**TECHNICAL SKILLS** Experience in spectroscopy, aperture photometry, data reduction and analysis, telescope control, and astroseismological research techniques.

*Programming:* PYTHON, C and IDL.

*Applications:* L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>, Microsoft Office and other common productivity packages for Windows, OS X, and Linux platforms. Advanced capabilities in using GNUPlot and Adobe Photoshop CS4. IRAF, Period04, FAMIAS, etc.

*Operating Systems:* Apple OS X, Linux (Ubuntu, SUSE, Fedora), Microsoft Windows Vista/XP/2000.

*Additional Technical Skills:* Advanced skills and experiences in analogue and digital photography (panorama photography, landscapes, black and white photography, image processing, etc.) Above average HTML and CSS knowledge. Experience in using the WordPress publishing platform. Knowledge about interpretation of the output of several numerical weather forecast models.

**INTERESTS**

*Sports:* Player of [Tigers Kraainem Floorball Club](#) - Belgian League Adults Division 1. (Won the Second League of Hungary in 2009 with [Diamonds SK](#)). Other regular activities: cycling (also commuting with a bike), climbing, badminton, and hiking – accomplishing the [Countrywide Blue Tour](#) (the first long distance path in CEEU) creating and maintaining thematic homepage of the route, including GPS based route data (tracks, elevation profiles, points of interest), travel descriptions with photos, and interactive Google Earth files among the official information about the route (in English also). Participating in, and organising special hikes (long distance routes to be completed under a limited time period). "Gold level" hiker (Hungarian Nature-Friends' Association).

*Popular science:* Leader of the Solar Section of the [Hungarian Astronomical Association \(HAA\)](#) and columnist of the periodical "Meteor" (Scientific journal issued monthly) from 2004 to 2009. Presentations for the Association on selected topics.

*Musical instruments:* clarinet (advanced training in music-school, former member of a local band), piano, flute, guitar (basic skills).

These talks and publications are available (or were presented) only in Hungarian, unless otherwise noted.

*Books:*

- P. Pápics, J. Iskum: "The Sun" in: Handbook of Amateur Astronomers (editor: A. Mizser), third revised and extended edition, Hungarian Astronomical Association, Budapest, 185–218 (2006)

*University Lecture Notes:*

- P. Pápics: "History of Astronomy 1" (based on the seminars of B. Balázs)
- P. Pápics: "History of Astronomy 2" (based on the seminars of B. Balázs)

*Popular Science Talks and Seminars:*

- "NASA SDO: Exploring the Sun in High Definition" at the weekly Ad Valvas seminar of the Institute of Astronomy (K.U.Leuven, 19 March 2010)
- "End of the Current Solar Cycle?" at Polaris Observatory, György Kulin evening classes (29 April 2008)
- "Annular Solar Eclipse Expedition" at Polaris Observatory, Weekly Tuesday Seminars (13 December 2005)
- "Observing the Sun" at Polaris Observatory, Weekly Tuesday Seminars (22 November 2005)
- "Solar Telescopes" at Polaris Observatory, Weekly Tuesday Seminars (22 March 2005)
- "Ancient Astronomy" at Polaris Observatory (18 November 2004)
- "Astronomy in the Ancient Ages" at the Youth Astronomy Camp of the HAA (17 July 2004)

*Popular Science Articles:*

- P. Pápics: "The Sun: Transitional period", *Meteor* **39**, No. 11, 30–33 (2009)
- P. Pápics: "The Sun: Revolution?", *Meteor* **38**, No. 11, 29–30 (2008)
- P. Pápics: "The Sun: Still in Minimum", *Meteor* **38**, No. 9, 28–29 (2008)
- P. Pápics: "The Sun: A spot, finally!", *Meteor* **38**, No. 5, 18–19 (2008)
- P. Pápics: "The Sun: Dawn of a New Cycle", *Meteor* **38**, No. 3, 24 (2008)
- P. Pápics: "The Sun: Solar Minimum", *Meteor* **38**, No. 2, 37 (2008)
- P. Pápics: "The Sun: Quiet Summer Days", *Meteor* **37**, No. 11, 20–22 (2007)
- P. Pápics: "The Sun in May", *Meteor* **37**, No. 7–8, 51 (2007)
- P. Pápics: "The Sun: Everything is Quiet", *Meteor* **37**, No. 6, 24–25 (2007)
- P. Pápics: "The Sun: Dec 2006 to Febr 2007", *Meteor* **37**, No. 4, 24–28 (2007)
- P. Pápics: "The Sun: October–November 2006", *Meteor* **37**, No. 1, 30–32 (2007)
- P. Pápics: "The Sun: September 2006", *Meteor* **36**, No. 11, 28, 43 (2006)
- P. Pápics: "The New Cycle is Coming", *Meteor* **36**, No. 10, 38–40 (2006)
- P. Pápics: "The Sun: August 2006", *Meteor* **36**, No. 10, 36–38 (2006)
- P. Pápics: "The Sun: June–July 2006", *Meteor* **36**, No. 9, 22–24 (2006)
- P. Pápics: "The Sun: April–May 2006", *Meteor* **36**, No. 7–8, 71–74 (2006)
- P. Pápics: "The Sun: March 2006", *Meteor* **36**, No. 5, 24–25 (2006)
- P. Pápics: "The Sun: February 2006", *Meteor* **36**, No. 4, 22 (2006)
- P. Pápics: "The Sun: January 2006", *Meteor* **36**, No. 3, 24, 32 (2006)
- P. Pápics: "The Sun: December 2005", *Meteor* **36**, No. 2, 20–21 (2006)
- P. Pápics: "The Sun: October–November 2005", *Meteor* **36**, No. 1, 29–31 (2006)
- P. Pápics: "Annular Eclipse Expedition to Spain", *Meteor* **35**, No. 12, 3–7 (2005)
- P. Pápics: "The Sun: September 2005", *Meteor* **35**, No. 11, 35–37 (2005)
- P. Pápics: "The Sun: August 2005", *Meteor* **35**, No. 10, 25–26 (2005)
- P. Pápics: "The Sun: May–July 2005", *Meteor* **35**, No. 9, 19–24 (2005)
- P. Pápics: "The Sun: April 2005", *Meteor* **35**, No. 6, 23–24 (2005)

- P. Pápics: "The Sun: March 2005", *Meteor* **35**, No. 5, 26–27 (2005)
- P. Pápics: "The Sun: February 2005", *Meteor* **35**, No. 4, 26–27 (2005)
- P. Pápics: "The Sun: January 2005", *Meteor* **35**, No. 3, 21–22 (2005)
- P. Pápics: "The Sun: December 2004", *Meteor* **35**, No. 2, 24–25 (2005)
- P. Pápics: "The Sun: November 2004", *Meteor* **35**, No. 1, 25–26 (2005)
- P. Pápics: "3D transform filter in Photoshop", *Meteor* **35**, No. 1, 21–22 (2005)
- P. Pápics: "The Sun: October 2004", *Meteor* **34**, No. 12, 18–19 (2004)
- P. Pápics: "The Sun: September 2004", *Meteor* **34**, No. 11, 26–27 (2004)
- P. Pápics: "The Sun: July–August 2004", *Meteor* **34**, No. 10, 20–23 (2004)
- P. Pápics: "Ágasvár Youth Camp 2004", *Meteor* **34**, No. 9, 7–8 (2004)
- P. Pápics: "Flora and the Volcano of Tenerife", *Meteor* **34**, No. 7–8, 36–38 (2004)