

CONTACT INFORMATION	Name: Vaia Prassa Place of Birth: Larissa Marital Status: Married with 1 child <i>e-mail</i> : vprassa@uth.gr Date of Birth: 20/10/1981 Nationality: Greek
RESEARCH INTERESTS	Nuclear Structure - Nuclear Fission - Nuclear Reactions - Nuclear Astrophysics - Computational Physics.
CURRENT POSITION	<ul style="list-style-type: none"> <li>• Postdoctoral researcher, Department of Computer Science and Telecommunications, University of Thessaly.</li> <li>• Adjunct Lecturer, Physics Department, University of Thessaly.</li> </ul>
EDUCATION	<p>[2005-2009] <b>Ph.D in Physics, Physics Department, Aristotle University of Thessaloniki (AUTH), Greece.</b> Thesis: <i>Theoretical analysis of heavy ion collisions</i>. Advisor: Professor G. A. Lalazissis. Area of Study: Theoretical Nuclear Physics.</p> <p>[2003-2005] <b>MS.c, Computational Physics, Physics Department, AUTH, Greece.</b> Thesis: <i>Particle production in heavy ion collisions and the density dependence of the inelastic cross section</i>. Advisor: Professor G. A. Lalazissis. Area of Study: Theoretical Nuclear Physics.</p> <p>[1999-2003] <b>BS.c, Physics, Physics Department, AUTH, Greece.</b> Graduation Mark: 8.90/10 (graduation with honors, in the top 1% of the year). Thesis: <i>Study of the phenomenon of ageing at the analog detectors of the ATLAS muon spectrometer</i>. Advisor: Professor Ch. Petridou. Area of Study: Experimental High Energy Physics.</p>
COMPUTER SKILLS	<p><b>Operating Systems:</b> Linux, Mac OS and MS Windows.</p> <p><b>Programming languages:</b> Python/ipython, C/ C++, FORTRAN 77/95, Mathematica and ROOT.</p> <p><b>Software:</b> TEX, LaTeX, BibTeX, Beamer, Open Office, Microsoft Office and other common productivity packages for Windows, Mac OS X, and Linux platforms.</p> <p><b>GRID user:</b> 1. SEE-EGEE-HellasGrid infrastructure 2. LNR-Cluster University of Zagreb 3. Finnish Grid Infrastructure (FGI).</p>
LANGUAGES	<p><b>Greek:</b> Native.</p> <p><b>English:</b> Fluently, spoken and written. Certificate of Proficiency in English, University of Michigan.</p> <p><b>Italian:</b> Good, spoken and written.</p>
FELLOWSHIPS SCHOLARSHIPS AWARDS	<ul style="list-style-type: none"> <li>• Stavros Niarchos Foundation, Post-doctoral research scholarship, 2017-current.</li> <li>• Marie Skodowska Curie, FP7-PEOPLE-2011-COFUND-NEWFELPRO, postdoctoral research fellowship, University of Zagreb, Croatia, 2014-2106.</li> <li>• Best poster award, Gordon Conference on Nuclear Chemistry, Intersections Between Structure and Reactions: Pushing the Frontiers of Nuclear Science', Colby-Sawyer College, New London, NH, 2011.</li> <li>• Post-doctoral research scholarship of the State Scholarships Foundation, 2010-2011.</li> <li>• PhD scholarship of the State Scholarships Foundation, after succeeding (first in classification) to the corresponding examinations, 2005 - 2009.</li> <li>• Scholarship of the Operational Program for Education and Initial Vocational Training (O.P. "Education"), MS.c. in Computational Physics, Physics Department, AUTH (first in class), 2005.</li> <li>• Scholarship of the State Scholarships Foundation, Bachelor in Physics, AUTH, 2000-2001.</li> <li>• Scholarship of the State Scholarships Foundation, Bachelor in Physics, AUTH, 1999-2000.</li> </ul>
RESEARCH ACTIVITY	<p>The research activity of Dr. Prassa covers a wide range of nuclear phenomena: nuclear ground state properties and excitations, nuclear fission, heavy ion reactions, nuclear astrophysics and nuclear density functionals. At the same time, her research includes the development and application of mathematical methods, algebraic models and computational tools in the modeling and simulation of physical phenomena.</p> <p><b>Research Positions</b></p> <ul style="list-style-type: none"> <li>• Postdoctoral researcher, University of Thessaly, 2017 - current.</li> <li>• Postdoctoral researcher, University of Zagreb, 2014-2016.</li> <li>• Postdoctoral researcher, University Jyväskylä, 2012-2014.</li> <li>• Postdoctoral researcher, Aristotle University, 2010-2012.</li> </ul>

## Research Visitor

- GSI-Darmstadt, Germany in collaboration with the group of Prof. D. Ackermann.
- Kavli Institute for Theoretical Physics China at the Chinese Academy of Sciences (KITPC), Beijing, China.
- Physics Department, University of Zagreb, Croatia in collaboration with the group of Prof. D. Vretenar.
- Institute for Nuclear Theory (INT), University of Washington, Seattle, Washington, U.S.A.
- LNS-INFN, Catania in collaboration with the group of Prof. M. Di Toro.
- Ludwig Maximilian Universität (LMU), Munich, Germany in collaboration with Prof. H. H. Wolter and Doct. T. Gaitanos.

## Research projects

- [2017-current] Postdoctoral scholarships by the Stavros Niarchos Foundation, University of Thessaly. PI E. Tsoukalas.
- [2014-2016] Marie Skłodowska Curie-FP7 -PEOPLE - 2011 - COFUND - NEWFELPRO. Research fellowship, "Next-generation nuclear energy density functionals", Croatia. Project manager: V. Prassa.
- [2012-2014]: FiDiPro - the Finland Distinguished Professor Programme, project PI Prof. J. Dobaczewski, Physics Department, University of Jyväskylä.
- [2005-2008]: "Reformation of the academic course program of the Physics Department of AUTH", AUTH.
- [2005-2007]: "PYTHAGORAS II (General): Theoretical research of nuclear matter problems", AUTH.
- [2007]: "Updating the Library System of the AUTH", AUTH.
- [2005]: "Computational Physics", AUTH.
- [2003-2004]: "Design-Construction-check of high mechanical accuracy apparatus and development of methods for their mass production", AUTH.

## Conferences/Workshops/Symposium/Summer Schools/Invited Seminars

Dr. Prassa was invited to present her work in EURISOL 2013 "Structure of heavy and superheavy nuclei with Energy Density Functionals" in Krakow, Poland, in GANIL research center in Caen, France and the National Center for Scientific Research (NCSR) Demokritos. She was also honored with a best poster award at the Gordon Conference, Colby-Sawyer College, New London, USA. 2011. In total she has presented her work in 28 scientific conferences, workshops and summer schools and has participated in an additional 6.

## Publications

**Overview:** 1 PhD dissertation, 10 publications in peer-review journals, 1 publications in non-peer review journals, 20 publications in conferences proceedings, 1 book as an assistant editor.

Total Citations in Google Scholar: 198, h-index: 8, <https://scholar.google.com/citations?user=kGEfwn8AAAAJ&hl=en>.

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=16402510400>

ORCID: <https://orcid.org/0000-0001-8343-8486>.

ResearchGate: [https://www.researchgate.net/profile/Vaia\\_Prassa](https://www.researchgate.net/profile/Vaia_Prassa)

## Selected publications

1. "Two quasiparticle K-isomers within the covariant density functional theory"  
K. Karakatsanis, G.A Lalazissis, **V. Prassa**, and P. Ring  
Phys. Rev. C 102, 034311 (2020);  
<https://doi.org/10.1103/PhysRevC.102.034311>
2. "High-K isomers in transactinide nuclei close to  $N = 162$ "  
**V. Prassa**, Bing-Nan Lu, T. Niksic, D. Vretenar  
Phys. Rev. C 91, 034324 (2015);  
<http://journals.aps.org/prc/abstract/10.1103/PhysRevC.91.034324>.
3. "Structure of transactinide nuclei with relativistic energy density functionals"  
**V. Prassa**, T. Niksic, D. Vretenar  
Phys. Rev. C 88, 044324 (2013).  
<http://journals.aps.org/prc/abstract/10.1103/PhysRevC.88.044324>.
4. "Relativistic Energy Density Functional Description of Shape Transition in Superheavy Nuclei"

**V. Prassa**, T. Nikšić, G. A. Lalazissis, D. Vretenar  
Phys. Rev. C 86, 024317 (2012).  
<http://link.aps.org/doi/10.1103/PhysRevC.86.024317>

5. **“Probing the nuclear matter at high baryon and isospin density with heavy ion collisions”**  
Di Toro M., Colonna M., Ferini G., Giordano V., Greco V., Plumari S., Rizzo J., Liu B., Baran V., Gaitanos T., **Prassa, V.**, Wolter H. H.  
Int. J. Mod. Phys. **E** 19 856-868, 2010.  
<http://dx.doi.org/10.1142/S021830131001531X>
6. **“Isospin Effects on Strangeness in Heavy-Ion Collisions”**  
**V. Prassa**, T. Gaitanos, G. Ferini, M. Di Toro, G. A. Lalazissis and H. H. Wolter  
Nucl. Phys. **A** 832 88-99 (2010).  
<http://dx.doi.org/10.1016/j.nuclphysa.2009.11.009>
7. **“The High-Density Symmetry Energy in Heavy Ion Collisions”**  
H. H. Wolter, **V. Prassa**, G. A. Lalazissis, T. Gaitanos, G. Ferini, M. Di Toro and V. Greco  
Progress in Particle and Nuclear Physics, Volume 62, Issue 2, April 2009, Pages 402-406.  
<http://dx.doi.org/10.1016/j.pnpnp.2008.12.010>
8. **“Isospin Dynamics in Heavy Ion Collisions: from Coulomb Barrier to Quark Gluon Plasma”**  
M. Di Toro, V. Baran, M. Colonna, G. Ferini, T. Gaitanos, V. Giordano, V. Greco, Liu Bo, M. Zielinska-Pfabe, S. Plumari, **V. Prassa**, C. Rizzo, J. Rizzo, H.H. Wolter  
Progress in Particle and Nuclear Physics, Volume 62, Issue 2, April 2009, Pages 389-401.  
<http://dx.doi.org/10.1016/j.pnpnp.2008.12.038>
9. **“Constraining the Symmetry Energy: A Journey in the Isospin Physics from Coulomb Barrier to Deconfinement”**  
M. Di Toro, M.Colonna, V.Greco, G.Ferini, C.Rizzo, J.Rizzo, V.Baran, T.Gaitanos, **V. Prassa**, H.H.Wolter, M.Zielinska-Pfabe  
Int. J. Mod. Phys. **E** 17 , 1799 (2008).  
<http://dx.doi.org/10.1142/S0218301308010799>
10. **“In-medium effects on particle production in heavy ion collisions”**  
**V. Prassa**, G. Ferini, T. Gaitanos, H. H. Wolter, G. A. Lalazissis and M. Di Toro  
Nucl. Phys. **A** 789, 311 (2007).  
<http://dx.doi.org/10.1016/j.nuclphysa.2007.02.014>

TEACHING  
EXPERIENCE

Dr. Prassa provides/has provided independent and auxiliary teaching work (at undergraduate and postgraduate level) in Greece and abroad (Aristotle University of Thessaloniki, University of Thessaly, Hellenic Open University, University of Zagreb, ATEI of Central Greece, ATEI of Thessaly) in Physics and Informatics: Quantum Mechanics, Nuclear Physics, Mathematical Methods of Physics I & II, General Physics I, Physics I & II, Didactics of Physics, Didactics of Chemistry, Numerical Analysis, Linear Algebra, Computers and Applications, Teaching of Informatics. She has co-supervised 3 diploma theses (2 undergraduate, 1 postgraduate).