

## Dr. Khalatyan Arman

---

|                    |   |  |
|--------------------|---|--|
| ABOUT MY SELF      | <b>Birth date/place:</b> 12 May 1976, Yerevan, Armenia.<br><b>Sex:</b> Male, <b>Status:</b> Married, <b>Children:</b> Son and Daughter <b>Other:</b> Non smoker.<br><b>Citizenship:</b> Republic of Armenia<br><b>Languages:</b> Armenian(native), Russian(near native), English(good), Deutsch(good), French(bas). |  |
| EMPLOYMENT HISTORY | <u>1 July 2010 - present</u>  | <i>PostDoc in E-Science division</i> at Leibniz-Institut für Astrophysik Potsdam. Project: <b>Astrophysical Data Management</b>  |
|                    | <u>1 Feb. 2008 - 30 June 2010</u>   | <i>CNRS/ANR PostDoc, Chercher</i> at Laboratoire d'Astrophysique de Marseille. Project: <b>HALOBAR</b> <i>Dark Matter and the dynamical evolution of barred galaxies.</i>  |
|                    | <u>2004 - 2007</u>  | <i>Research Assistant</i> in Astrophysical Institute Potsdam.  |
|                    | <u>2000 - 2003</u>  | <i>Programmer-Engineer</i> in Yerevan State University Armenia, at Laboratory of Semiconductors physics, ISTC A-321 project, programming on: MFC, Delphi and LabView under Windows family, collaboration with BeamCo (USA) <a href="http://www.beamco.com">http://www.beamco.com</a>   |
|                    | <u>2000 - 2003</u>  | <i>Mail server administrator</i> (MDK, Linux OS) in the International Center for Advanced Studies ( <a href="http://icas.y-su.am">http://icas.y-su.am</a> )  |
| EDUCATION          | <u>17 January 2008</u><br><u>2004 - 2008</u><br><u>2006 July</u><br><u>2003 Dec - 2004 Jan</u><br><u>2001 - 2002</u><br><u>2001</u><br><u>1998</u>  | PhD thesis oral defence at <i>University of Potsdam</i><br>PhD Student at <i>University of Potsdam</i><br>Bad-Honnef, Germany. Student, Summer School<br>Jerusalem, Israel, Hebrew University. Student, Winter School<br>PhD Student at Department of Theoretical Physics at Yerevan State University<br>Master of Science in Physics at <i>Yerevan State University</i> " <b>Helix-Coil transformations in biopolymers</b> "<br>Bachelor of Science in Physics at <i>Yerevan State University</i> " <b>Quasi-radial pulsations of rotating white dwarfs and neutron stars in general relativity</b> " |
| PUBLICATIONS       | See extra page: <a href="#">Publications</a>  |  |
| Public Outreach    | <u>01.04.2007</u><br><u>06.12.2006</u>  | Marenostrum Image appeared in <b>GEO Magazin</b> Nr. 4/07<br>Marenostrum press release in " <b>Süddeutsche Zeitung</b> "   |
| TALKS              | <u>2010 November</u><br><u>2009 June</u><br><u>2007 November</u><br><u>2007 August</u><br><u>2007 April</u>   | Bonn, Deutsche AG Tagung. <i>Presentation, "CoSiMM: The Collaborative Simulation MetaData Management."</i><br>Jablonna, CLUES Group Meeting <i>Presentation, "Local Group in pictures."</i><br>Marseille, LAM-OAMP <i>Seminar, "Is AGN feedback necessary to form red elliptical galaxies?"</i><br>Yerevan, JENAM <i>Invited Talk, "AGN influence on Galaxy Type and Morphology"</i><br>Haifa, Technion, <i>GIF workshop: "AGN formation in galaxy mergers."</i>   |

|                     |                           |   |
|---------------------|---------------------------|---|
|                     | <u>2006 October</u>       | Madrid, Universidad Autonoma de Madrid (UAM), “ <i>Disk Galaxy Formation in Cosmological Environment.</i> ”   |
|                     | <u>2006 September</u>     | Potsdam, 4-th Thinkshop Potsdam “ <i>Accretion and self-regulation of black holes in galaxy mergers</i> ”   |
|                     | <u>2006 July - August</u> | Potsdam, Germany <i>Sixth Summer School: Supercomputational Cosmology</i> “ <i>The Art of Astro-Programming. Introduction to F77/F90 and C/C++</i> ” “ <i>GasPMViewer v1.x.: The secrets of particle visualization methods.</i> ”   |
|                     | <u>2005</u>               | University Center Obergurgl, Tyrol, Austria “ <i>Data mining in modern cosmological simulations.</i> ” <i>2nd High-End Visualization Workshop</i>   |
|                     | <u>2003 September</u>     | Yerevan, Advanced NATO Workshop <i>Talk</i> , “ <i>Equation of state of Symmetric Quark Matter in Confining Separable Model</i> ”   |
|                     | <u>2002 January</u>       | Yerevan State University, <i>Armenian Young Physicists Conference</i> : “ <i>Equation of State for Strange Quark Matter in a Separable Model</i> ”  |
| VISITS              | <u>2009 October</u>       | Potsdam, Germany <i>French-German collaboration</i>   |
|                     | <u>2008 November</u>      | Potsdam, Germany <i>French-German collaboration</i>   |
|                     | <u>2007 March</u>         | Barcelona, Spain <i>Marenostrum and HORISON Collaboration Meeting: comparison GADGET-2 vs RAMSES</i>  |
|                     | <u>2005 July</u>          | LEIBNIZ-RECHENZENTRUM, München <i>Seminar</i> , “ <i>Programmierung von Hochleistungsrechnern</i> ”.  |
|                     | <u>2003 March - Sept.</u> | Rostock University, Department of Physics Germany, <i>Research DAAD inter-university collaborations</i> , “ <i>Quark Matter in compact stars</i> ”  |
|                     | <u>2002 March - Mai</u>   | JINR, Dubna, Russia<br><i>Research UNESCO grant</i> , “ <i>Quark Matter in a Separable model</i> ”  |
| TEACHING EXPERIENCE | <u>2006</u>               | Potsdam, Germany, <i>Lecturer</i> : Potsdam, Germany, <i>Sixth Summer School (2006)</i> : “ <i>Supercomputational Cosmology</i> ”   |
|                     | <u>2005</u>               | Potsdam, Germany, <i>Lecturer Assistant</i> : <i>Fifth Summer School (2005)</i> , “ <i>Complex Networks in Brain Dynamics</i> ”   |
|                     | <u>2001 - 2002</u>        | Yerevan State University, Armenia, <ul style="list-style-type: none"> <li>• <i>Lecturer, Students in 1st BS year</i>: Computers introduction, Faculty of Physics</li> <li>• <i>Lecturer Assistant, Students in 1st MS year</i>: Modeling of physical processes, Dep. of Theor. Phys.</li> <li>• <i>Lecturer, Students in 2nd MS year</i> : Modern programming languages: Introduction to MFC, Dep. of Theor. Phys.</li> </ul>   |
| SCIENTIFIC SOFTWARE |                           | <u><i>Parallel Dark Matter Halo finder.</i></u><br><b>Description:</b> BDM algorithm by A.Klypin, MPI/OpenMP hybrid F90 code.<br><u><i>GPU accelerated 3D visualization framework for N-body particle data.</i></u><br>( <a href="http://pmviewer.sourceforge.net">http://pmviewer.sourceforge.net</a> )<br><b>Description:</b> GPL, real time rendering and offscreen rendering modes with 3D stereo support, C/C++ and OpenGL code.<br><b>Platform:</b> independent |
| COMPUTER SKILLS     |                           | <b>Operating Systems:</b> Linux/UNIX, Windows Family.<br><b>Prog.lang. and libs:</b> C/C++, BOOST, F77/F90, MPI, OpenMP, QT, MFC, OpenGL.<br><b>Script languages:</b> PHP, MySQL, IDL 6.x, POV-Ray, BASH  |
| SPECIAL HARDWARE    |                           | <u>GRAPES:</u> Grape-3AF, Grape-5A, Grape-6 <u>GPU:</u> GLSL shading language, CUDA basics.   |
| HOBBIES             |                           | AI, psychology, music, reading, photography.  |

- Forero-Romero J. E., Yepes G., Gottloeber S., Knollmann S. R., Khalatyan A. Cuesta A. J., Prada F. *Simulated vs. observed UV emission at high redshift: a hint for a clumpy ISM?*, MNRAS Letters, 403, pp.L31-L35 (2010)
- A. Cattaneo, S.M. Faber, J. Binney, A. Dekel, J. Kormendy, R. Mushotzky, A. Babul, P.N. Best, M. Bruggen, A.C. Fabian, C.S. Frenk, A. Khalatyan, H. Netzer, A. Mahdavi, J. Silk, M. Steinmetz, L. Wisotzki, *The role of black hole activity in galaxy evolution*, Nature, Volume 460, Issue 7252, pp. 213-219(2009)
- A. Khalatyan, A. Cattaneo, M. Schramm, S. Gottlöber, M. Steinmetz and L. Wisotzki. *Is agn feedback necessary to form red elliptical galaxies?*, Monthly Notices of the Royal Astronomical Society, 387, 13 (2008).
- A. M. von Benda-Beckmann, E. D'Onghia, S. Gottlöber, M. Hoeft, A. Khalatyan, A. Klypin, and V. Mueller. *The Fossil Phase in the Life of a Galaxy Group*. Monthly Notices of the Royal Astronomical Society, Volume 386, Issue 4, pp. 2345-2352 (2008).
- Yepes, G., Martinez-Vaquero, L., Khalatyan, A., Gottlöber, S., Hoeft, M., Teyssier, R. *The MareNostrum Galaxy Formation Simulation Project*. Dark Galaxies and Lost Baryons, Proceedings of the International Astronomical Union, IAU Symposium, Volume 244, p. 393-394,(2008)
- C. Maulbetsch, V. Avila-Reese, P. Colin, S. Gottlöber, A. Khalatyan and M. Steinmetz *The Dependence of the Mass Assembly History of Cold Dark Matter Halos on Environment*, ApJ 2007, Volume 654, Issue 1, pp. 53-65
- Gottlöber, S., Yepes, G., Khalatyan, A., Sevilla, R., Turchaninov, V. *Dark and baryonic matter in the MareNostrum Universe*, DSU 2006. AIP Conference Proceedings, Volume 878, pp. 3-9
- S.Gottlöber, A.Khalatyan, A.Klypin Innovatives Supercomputing in Deutschland inSiDE Vol.3 No. 2 Autumn 2005 *The Universe on Small Scales*
- D. Blaschke, H. Grigorian, A. Khalatyan and D. N. Voskresensky *Exploring the QCD phase diagram with compact stars* Nucl. Phys. B (Proc. Suppl.) 141 (2005) 137-142
- D.N. Aguilera, J. Berdermann, D.B. Blaschke, H.A. Grigorian, A. Khalatyan, G. Poghosyan and D.N. Voskresensky *Color superconducting quark matter and compact stars observables* Contributed to the NATO advanced research workshop on superdense QCD matter and compact stars, Yerevan, Armenia, 27.09. - 4.10.2003. published in: NATO Science Series II Mathematics, Physics and Chemistry, 197 377-404 (2005)
- C. Gocke, D. Blaschke, A. Khalatyan, H. Grigorian, *Equation of State for Strange Quark Matter in a Separable Model*, Preprint ECT\*-01-005 (2001).[hep-ph/0104183], contribution to Exploring Quark Matter, proceedings of the workshops Quark Matter in Astro- and Particle Physics, Rostock (Germany), November 2000, and Dynamical Aspects of the QCD Phase Transition, Trento (Italy), March 2001