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PERSONAL DATA

Gender: Male
Nationality: Lebanese

Place of Birth: Kuwait, Kuwait
Marital Status: Single

EDUCATION

University of Heidelberg **Astronomisches Rechen-Institut, Heidelberg, Germany**
Doctor of Philosophy (Ph.D.) in Astronomy **2014**

- International Max Planck Research School for Astronomy and Cosmic Physics (IMPRS)
- Advisor: Prof. Dr. Eva Grebel
- Thesis Topic: RR Lyrae and variable stars, substructures, and the Oosterhoff dichotomy in the Halo of the Milky Way

Bowling Green State University (BGSU) **Ohio, USA**
Master of Science (M.Sc.) – Physics, (4.0 GPA) **2011**

- Honor list: all semesters
- Advisor: Dr. Prof. Andrew Layden
- Thesis Topic: Variable Stars in Globular Clusters

American University of Beirut (AUB) **Beirut, Lebanon**
Bachelor of Science (B.Sc.) – Physics, (3.37 GPA) **2009**

- Honor list: 2007-2008

Positions Held

Part-time Assistant Professor, Department of Natural Sciences, Lebanese American University, Lebanon *Sep 2015 – ongoing*
Part-time Assistant Professor, Faculty of Science: Saint Joseph University and Notre Dame University *Sep 2016 – ongoing*
Remote Researcher, University of Heidelberg, Germany *May 2016 – ongoing*
Founder of “the Cosmic Dome”, Lebanon, UAE, and Jordan *April 2015 – Oct 2017*
Masters Thesis Advisor, Topic: The Oosterhoff Populations in the Milky Way. Student: Marc Bou Zeid *Jan 2017 – July 2017*
Postdoc, University of Heidelberg, Germany *Dec 2014 – Aug 2015*
Lecturer & Teaching Assistant, University of Heidelberg, Germany *2013 – 2014*
Teaching Assistant, Bowling Green State University, OH, USA *2009 – 2011*

RESEARCH EXPERIENCE

- Metallicity distribution functions of the Galactic Bulge RR Lyrae (RRL) stars *2014 – ongoing*
- Oosterhoff analysis of the halo RRL stars *2014 – ongoing*
- Searching for blue straggler stars in globular clusters *2014 – ongoing*
- Studying and finding new RRL stars to map the substructure of the Galaxy’s halo using different surveys *2011 – ongoing*
- Studying and developing Light Curve Analysis methods to statistically classify the star’s variability type *2011 – ongoing*
- Identifying color cuts and properties of RRL stars using different surveys (*Pan-STARRS, SDSS, 2M...*) *2011 – ongoing*
- Studying Long Period Variable Stars in Globular Clusters *2009 - 2015*
- Studying interstellar dust and star evolution (BGSU) *2009 - 2011*
- Testing the visibility in different locations in Lebanon using appropriate software and telescopes *2008 - 2009*
- Oil spill impact on the Lebanese coast. The study sheds light on the effects of oil spill on fish (AUB) *2007 - 2009*
- Research Assistant in the Animal Pathology lab at AUB, both literature and lab work *Summer of 2007*

SKILLS, TECHNICAL EXPERIENCE, AND LANGUAGES

Planetarium:

- Operating different types of planetariums. *2015 - ongoing*

Data Analysis and Programming:

- Handling and performing statistical analysis on massive amount of data from very large surveys (*i.e., Pan-STARRS, SDSS, CATALINA...*)
- Image stacking and photometric techniques: *IRAF, DAOPHOT, ISIS, and others*
- Programming: *Python, Matlab, and others*

Observing Experience:

- Operating the BGSU observatory (0.5m telescope) to observe different globular clusters, CCD Imaging *2009 - 2011*
- Observing remotely using Robotic Telescopes (PROMPT) *2009 - ongoing*
- Operating Lx-200 Meade Telescopes and other solar telescopes

Languages:

- Fluent in Arabic and English. Basic in German.

TEACHING EXPERIENCE

- *Astronomy 200: Introduction to Astronomy.* Lebanese American University *Fall 2015 – ongoing*
- *AST 620: Graduate Course: Variable Phenomena in Astrophysics.* USJ and NDU *Fall 2016 – ongoing*
- *Phy 306L: Modern Phys. Life Sciences Lab.* Lebanese American University *Fall 2016, Fall 2017*
- *Phys 101: Introductory Physics I* *Spring 2016 – Spring 2017*
- *Phys 202L: Introductory Physics Lab I* *Spring 2016 – Spring 2017*
- *Physics 301: Classical Physics.* Lebanese American University *Fall 2015*
- *Galactic & Extragalactic Astronomy.* Heidelberg University. *2013 - 2014*
- *Phy201: General Physics I (lecture summary and lab).* Bowling Green State University. *2009 - 2011*
- *Phy202: General Physics II (lecture summary and lab).* Bowling Green State University. *2009 - 2011*
- *Classical Physics Lab* (assistant for the lab instructor). American University of Beirut *Summer 2008*
- *Tutoring: Teaching physics and mathematics courses for high school and college students.* *2005 - 2011*

HONORS AND AWARDS

• Medal of appreciation from the municipality of “Kawthareyet Seyed” for spreading scientific awareness	2017
• Recognition award from the “Festival d’Astronomie de Fleurance au Liban”	2017
• Recognition award from the “Lebanese International University”	2017
• Visitor access to all public schools, Ministry of Education, Lebanon	2016
• Creative Ideas, Entrepreneurship Summit of Expo 2020 and Wamda, Dubai, UAE	2016
• Recognition Award, Ministry of Culture, Lebanon	2015
• Win Stone Award for graduating with a cumulative total GPA of 4.0, BGSU	2011
• Arthur Award for research and academic excellence, BGSU	2011
• Arthur Award for research and academic excellence, BGSU	2010
• Dean’s Honor List of the American University of Beirut	2007 - 2008
• Electricity production award - Beirut Baptist School	2005

PROFESSIONAL MEMBERSHIP

• Committee member of the “Science Days” in Lebanon, Ministry of Culture	2016 – ongoing
• Mentor at the American University of Beirut’s Hackathon	2016 - ongoing
• Founder & CEO of the first Planetarium in Lebanon, “the Cosmic Dome”	2015 - ongoing
• Member of the International Planetarium Society (IPS)	2013 - ongoing
• Junior member of the American Astronomical Society (AAS)	2011 - ongoing
• Student Representative of the IMPRS students at Heidelberg	2011 - 2012
• Graduate Representative of the World Student Association at BGSU	2010 - 2011
• Founder and president of the Astronomy Club at AUB	2009
• President of the Physics Society at AUB	2008 - 2009
• Member of the Lebanese Astronomy Group (LAG)	
• Member of the “Toufoula” organization which helps children suffering from cancer in Lebanon	

OTHER ACTIVITIES

- Acting
- Playing the “oud” and guitar
- Drawing, reading, and writing

SELECTED CONFERENCES, POSTERS, AND TALKS

• Speaker at the second astronomy festival in Lebanon, <i>Beirut, Lebanon</i>	October 2016
• <i>Speaker at “Talks with No Label”, UK Tech Hub</i>	May 2015
• International astronomical union - regional meeting, <i>Beirut, Lebanon</i>	September 2014
• The Multi-wavelength, multi-epoch heritage of Stripe 82, <i>Princeton University, NJ, USA</i>	March 2014
• Pan-STARRS Science Consortium Meeting (PS1SC), <i>National Central University, Taiwan</i>	November 2013
• GREAT Astro-Statistics School, <i>Alicante, Spain</i>	June 2013
• Variable Stars talk, <i>Bowling Green State University, Ohio, USA</i>	January 2013
• Ecology of Blue Straggler Stars, <i>European Southern Observatory, Santiago, Chile</i>	November 2012
• The art of observational techniques, <i>La Laguna University, Canary Islands, Spain</i>	September 2012
• GREAT School on the Science and Techniques of Gaia, <i>Leiden, the Netherlands</i>	February 2012
• American Astronomical Society, <i>Austin, Texas, USA</i>	January 2012
• Annual meeting of the Astronomische Gesellschaft, <i>Heidelberg, Germany</i>	September 2011
• Variable Stars Meeting, <i>Michigan State University, MI, USA</i>	March 2010

PUBLICATION LIST

- The Oosterhoff Populations in the Milky Way’s Halo.
Abbas, M., Grebel, E., and Huxor, A.
The Astrophysical Journal (in prep.)
- Variable Stars in the Metal-Rich Globular Cluster NGC 6496.
Abbas, M., Layden, A., Guldenschuh, K., Reichart, D., Ivarsen, K., Haislip, J., Nysewander, M., LaCluyze, A., and Welch, D.
The Astronomical Journal (Accepted 2014 September 27). (<http://adsabs.harvard.edu/abs/2014arXiv1410.3305A>).
- An Optimized Method to Identify RR Lyrae Stars in the SDSS×Pan-STARRS1 Overlapping Area Using a Bayesian Generative Technique.
Abbas, M., Grebel, E., Martin, N., Kaiser, N., Burgett, W., Hubers, M., and Waters, C.
The Astronomical Journal (Accepted 2014 April 23). (<http://adsabs.harvard.edu/abs/2014AJ....148....8A>).
- Newly Discovered RR Lyrae Stars in the SDSS×Pan-STARRS1×Catalina Footprint.
Abbas, M., Grebel, E., Martin, N., Burgett, W., Flewelling, H., and Wainscoat, R.
Monthly Notices of the Royal Astronomical Society (Accepted 2014 March 30). (<http://adsabs.harvard.edu/abs/2014MNRAS.441.1230A>).
- Serendipitous Discovery of a Thin Stellar Stream near the Galactic Bulge in the Pan-STARRS1 3Pi Survey.
Edouard, B., Annette, F., Schlafly, E., **Abbas, M.,** Bell, E., Martin, N., Hand-Walter, R., Sesar, B., et al.
Monthly Notices of the Royal Astronomical Society (Accepted 2014 June 06). (<http://adsabs.harvard.edu/abs/2014MNRAS.443L..84B>).

REFERENCES

(1) Dr. Eva K. Grebel

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(5) Mr. Ed Shiner

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(7) Dr. Dale Smith

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(2) Dr. Andrew Layden

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(8) Dr. Mounib El-Eid

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