



Curriculum Vitae

Prof. Dr. ALI A. TAANI

Professor of Astrophysics and Space Science



PERSONAL:

- **Name:** Ali Abed El-kareem Taani
- **Telephone No.:** Mobile : +962-77-2452593
Office: +962-5-3491111-ext. 4676
- **Email:** ali82taani@gmail.com ali.taani@bau.edu.jo
- **Current Address:** Physics Department, Al Balqa Applied University, Salt 19117, Jordan
- **Date and Place of Birth:** 15/07/1982 – Irbid, Jordan.
- **Marital Status:** Married (two children).

- **Website**  حوضي من عدن ... إلى عمان البلقاء
https://www.bau.edu.jo/Academic/Academic_Profile.aspx?lang=en&userid=LEoFxpTLi2dOCuhilw8sZA==

- **Research gate**  : http://www.researchgate.net/profile/Ali_Taani2/
- **Google Scholar**  <http://scholar.google.com/citations?user=eQB2E9IAAAAJ>
- **Scopus**  <https://www.scopus.com/authid/detail.uri?authorId=36640600900>
- **IAU**  <https://www.iau.org/administration/membership/individual/18724/>
- **Academia**  <https://al-balqa.academia.edu/AliTaani>

- **My ORCID ID:**  Connecting Research and Researchers <https://orcid.org/0000-0002-1558-1472>



EDUCATION:

- **Jan. 2010 – Feb. 2013: PhD in Astrophysics and Space Science.** National Astronomical Observatories (NAOC)-University of Chinese Academy of Sciences (UCAS), Beijing, China.

Ranked: 53 according to the-CWUR world University Rankings 2023.

101-125 according to the Times Higher Education World Reputation Rankings 2023.

Title of dissertation: Studying pulsar formation and evolution via the accretion induced collapse of white dwarfs.

Research Advisors: Prof. Chengmin **Zhang** and Prof. Yongheng **Zhao**.

- **Oct. 2004 – Jan. 2008: M.Sc. in Astronomy,** Institute of Astronomy and Space Science-Al al-Bayt University, **Jordan**.

Title of M.Sc. dissertation: Photometric (Optical) Variability of Some Close Binaries.

Research Advisor: Dr. Hanna **Sabat**.

- **Oct. 2000 – June 2004: B.Sc.in Physics,** Al al-Bayt University, Jordan.

EMPLOYMENT AND EXPERIENCES:

- **Sept., 2024-Now: Vice Dean for Graduate Studies and Scientific Research,** Al-Balqa Applied University, **Jordan**.
- **Sept., 2023-Now: Full Professor,** Physics dept., Al-Balqa Applied University, **Jordan**.
- **Sept., 2022- Sept., 2024: Head of Physics department,** Al-Balqa Applied University, **Jordan**.
- **Sept., 2022- Sept., 2024: Head of Basic Science dept.,** Al-Balqa Applied University **Jordan**.
- **Sept.2019- Sept. 2023: Associate Professor,** Physics dept., Al-Balqa Applied University
- **June–Sept.2018: Visiting Scientist, CAS President's International Fellowship Initiative (PIFI):** Institute of High Energy Physics. Beijing, **China**.
- **July– Sept., 2017: Visiting Scientist,** National Astronomical Observatories, **China**.
- **Sept., 2016 – Sept., 2017: Assistant Professor,** Applied Science dept., BAU, Jordan.
- **Sept.2015–Sep.2016:Visiting Academic,** Applied Physics and Astronomy dept., University of Sharjah, **United Arab Emirates**.
- **Sept. 15, 2014 – Sept. 1, 2015: Assistant Professor,** Dept. of Physics, BAU, Jordan.



- **May 15, 2014 – Sept. 15, 2014:** Assistant Professor, Applied Sciences dept, BAU, Jordan.
- **Sept. 15 2013–May 15 2014:** Full-time Lecturer, Applied Sciences dept. Aqaba University College, BAU, Jordan.
- **May 2013–Aug. 2013:** Part-time lecturer, Physics department, Yarmouk Uni., Jordan.
- **Nov. 2012 –Feb. 2013:** Researcher NAOC, China.
- **Jan. 2010 - Nov. 2012:** Research assistant: NAOC, China.
- **Jan. 2010 - Nov. 2012:** Research assistant: UCAS, Beijing, China.
- **Sept. 2005 – Jan. 2010:** Teacher: Ministry of Education, Jordan.
- **Sept. 2006 – Jun. 2007:** Research Assistant, Instit. of Astron. Space Science, Al al- Bayt University, Jordan

AWARDS AND HONOURS:

- 1- JAMIES Erasmus+ project** to perform a mobility period at Universidade do Minho (UMinho) Portugal. 2024
- 2- One-Year Seniority in Promotion to the Full Professor Rank.** 2024. Due to distinguish research work. Al- Balqa Applied University, Jordan.
- 3- 2024, The 3^{ed} position in Best Research Paper In Physics, COMSTECH.**
- 4- 2024, The Excellence in Research and Development,** Presented by MathTech Thinking Foundation, association with Poornima College of Engineering, India.
- 5- 2024, The Shield of Excellence recognizes outstanding contributions,** Al- Balqa Applied University, Jordan.
- 6- 2023, Shield for outstanding contributions to scientific advancement and the dissemination of knowledge in astrophysics and space science,** Jordanian Physical Society, Jordan.
- 7- 2021, Best Researcher Award in the International Scientist Awards on Engineering, Science, and Medicine, India.**
- 8- 2018, Award for the Visiting Scientist,** Institute of High Energy Physics, Chinese Academy of Science, Beijing, China.
- 9- 2017, Research Excellence Award,** Al Balqa Applied University, Jordan.
- 10- 2015, Honoring for Visiting Academics,** University of Sharjah, United Arab Emirates.
- 11- 2014, Distinguished Speaker Award:** Jordan Astronomical Society, Jordan.

GENERAL RESEARCH INTERSETS:

- Astrophysics and space sciences
- Formation and evolution of binary stellar systems with compact objects.
- Single and binary star evolution.
- Normal and binary Millisecond Pulsars.
- X-ray binaries.
- The oldest stars in our Galaxy and the Universe by photometric and spectroscopic



analyses.

COURSES TAUGHT:

- Astrophysics and Cosmology, Astronomy and Space Sciences, Modern Physics, Thermodynamics, Waves, Optics, Medical Physics, Electromagnetism-2, Graduation project, Advance lab-1, General Physics I & II (Phys. 101+102), General Physics for Computer Science students, General Physics for Medical college students, Physics (1+2) for Sea transportation technology students, Remedial Physics, General Physics lab I & II (Phys. 103+104).

Courses Ready to Teach:

- Atmospheric Physics, Meteorology, Solar physics, General Theory of Relativity, High Energy Astrophysics., Special Topics in Astrophysics and Space Science.

LANGUAGES:

- **Arabic:** Mother Tongue.
- **English:** Excellent spoken and writing.
- **Chinese:** Basics.

ADMINISTRATIVE EXPERIENCES and COMMITTEES MEMBERSHIPS:

Sep., 2024-Now: Vice Dean for Graduate Studies and Scientific Research, Al-Balqa Applied University, Jordan

Sep., 2024-Now: Member in the Scientific Research Council, BAU, Jordan

Sep., 2024-Now: Member in the Graduate Studies Council, BAU, Jordan

Sep., 2022- Sep., 2024: Head of Physics department, BAU, Jordan.

Sep., 2022- Sep., 2024: Head of Basic Science department, BAU, Jordan.

Sep., 2022- Sep., 2024: Member in the Faculty Council, BAU, Jordan

Oct.,2018- Sept.,2019: Member in the University, BAU, Jordan.

1/10/2017-1/10/2018: Member in the Faculty Council, BAU, Jordan.

1/10/2017- 1/09/2019: Member in Scientific Research Committee, Physics Dept. BAU.

1/10/2017- 1/09/2019: Member in the Physics-Lab Committee, Physics Dept. BAU.

Sept., 2015 – Aug. 31, 2016: Member in the Scientific Research Committee, Applied Physics and Astronomy department, University of Sharjah, **United Arab Emirates.**

Sept. 2015–Aug. 2016: Member in the Physics-Lab Committee, Applied Physics and Astronomy dept., University of Sharjah, **United Arab Emirates.**

THESES SUPERVISION (Graduate students):

- 1) **Studying high mass X-ray binaries through cyclotron lines and their physical parameters,** By MS.c student Mohammad Saeed. Dept. of Physics/ BAU. 2024, **Main Supervisor.**
- 2) **Studying the phase transformation of the steel alloys using nondestructive examination techniques,** By MS.c student Omar Qasem. Dept. of Physics/ BAU. 2024, **Main Supervisor.**



- 3) **Thermodynamic Properties of One-Dimensional Helium Systems**, MS.c thesis by Ra'fat Alwad, Physics Dept., BAU, 2023, **examiner.**
- 4) **Physical Parameters of the Visually Close Binary System HIP152 with Orbital Elements**. MS.c thesis by Anas Abu-Dhaim. Physics Dept., BAU. 2022, **Main Supervisor.**
- 5) **Modified orbital elements of the two binary systems Hip 114375 and Hip 114576**, By Ali Al-Shmary. Dept. of Physics/ Al al-Bayt University. 2019, **External examiner.**
- 6) **Physical Parameters of the Visually Close Binary System HIP12552 with Orbital Elements**. By Mohammad Hani El-mahameed. Department of Physics/Mu'tah University. 2014, **External examiner.**

THESES / GRADUATION PROJECTS SUPERVISION (Undergraduate students):

- 1) **Effect of Heat Treatment on Metallic Materials by Using Scanning Contact Potentiometry (SCP)** by Abdullah Al-Shanter and Muhammad Al-Kharabsha, Physics Dept., BAU, **Supervisor.** 2024
- 2) **Tune Measutement in Bosster**, by Ghofran Al-Yazgeen ,Mohammad Al-Hajajeh and Jawad Al-bqwor, Physics Dept., BAU, **Supervisor.** 2022
- 3) **Studying the non-destructive materials in cooperation with the Jordanian atomic energy commission systems**, by Rhagad Abu Radwan, Huda Abu-Sondus and Ghazi Yazgeen, **Supervisor.** 2022.
- 4) **The Synchrotron Radiation Monitor in Booster**, by Najat AlAnati, Abdullah Abueid, Bushra Ghanem & Amin Alzubi, BAU, **Supervisor.** 2021.
- 5) **Studying the eclipsing binary systems (V566 oph, V523 cas, RW com)** by Laith Marwan abu kaoud, Bahaa Khraisat and Shahd Alnserat, Physics Dept., BAU, **Supervisor.** 2021
- 6) **An analysis of light curves for Binary Systems of Delta Orionis and V-453 Cygnus** by Etaf AL-Bsheish, Hadeel AL-Rajifi and Muath Abo Ballan, Physics Dept., BAU, **Supervisor.** 2021.
- 7) **Studying the physical parameters of star spectra by of RSpec. software**, By Anas Abudhaim, Physics Department, BAU, **Supervisor.** 2021
- 8) **Analyzing the spectrum of A-class stars** by Salsabil Manaseer, Noor Taha, Alaa Qudah, Physics Dept., BAU, **Supervisor.** 2021.
- 9) **Metal-poor Stars Observed with the Automated Planet Finder Telescope. III. CEMP-no Stars are the Descendant of Population III Stars**, Astronomische Nachrichten, By Nour Aldein Almusleh. Al al-Bayt University, Jordan, 2021.
- 10) **Studying the Cyclotron lines in the High Mass X-ray Binaries**, by Mohamed Motlaq, Physics Dept., BAU, 2020.
- 11) **Kind of Classisification for Normal and Millisecond pulsars**, by Areeg Yousef and Namaa Wishah, BAU, 2020.
- 12) **Double neutron star and their formation**, by Mohammad Al-Bqoor and Mohammad Al-sharay, BAU, 2020.
- 13) **Studying the Pulsars and their Parameters**, by Lina al-Shihan and Hadeel al Hamad, BAU, 2020.
- 14) **Normal pulsars and their formation**, by Zied Dadda, BAU, 2019.



SCHOLARSHIPS AND GRANTS:

- 1- Full grant from ICESCO and Istanbul Technical University for attending the **3rd Training workshop on the design of an educational satellite (CanSat)**, 31 July-5 Aug. 2023. **Turkey.**
- 2- Full grant from International Astronomical Union for attending the **6th MEARIM 2023: Middle-East and Africa Regional IAU Meeting (MEARIM VI)**, 13- 17 Feb. 2023. **Cairo, Egypt, 300 US \$.**
- 3- **CAS President's International Fellowship Initiative (PIFI) 2018:** Chinese Academy of Science, Institute of High Energy Physics Research scholarship recipient. **Beijing, China 35,000 US \$.**
- 4- **Grant from Abdul Hameed Shoman Foundation-Fund for Scientific Research Support**, 2019, **Jordan, 10,000 US \$.**
- 5- **NAOC fellowship for visiting scientist.** Beijing, July- Sept. 2017. **China. 10,000 US \$.**
- 6- Full grant from Al-Balqa Applied University for attending the **Frontiers in Theoretical and Applied Physics.** Sharjah. 22 - 25 Feb. 2017. **United Arab Emirates. 1,000 US \$.**
- 7- Full grant from International Astronomical Union for attending the **38th International School for Young Astronomers (ISYA)**, 21 Aug. - 8 Sep. 2016. **Iran, 1,000 US \$.**
- 8- Full grant from University Jena for visiting researcher: Astrophysical Institute and University Observatory, University Jena, Jena, Aug. - 6 Sep. 2013, **Germany, 1,500 US \$.**
- 9- Chinese Academy of Science, Research scholarship recipient (**CAS graduate fellowship; 3 years**). Beijing, Jan. 2010 - Jan. 2013. **China, 50,000 US \$.**
- 10- National Astronomical Observatories, Research scholarship recipient (**NAOC graduate fellowship; 3 years**). Beijing, Jan. 2010 - Jan. 2013. **China, 20,000 US \$.**
- 11- Grant from Yonsei university for attending the **5th Korea-Japan Young Astronomers Meeting**, 22 - 25 Feb. 2012. **Korea.**
- 12- Grant from NAOC for attending the **5th Islamic Conference on Astronomy**, 22 - 24 March 2011: **Jordan.**
- 13- Grant from Granada university and NAOC for attending the **Azarquiel Summer School in Astrophysics**, Granada university, Granada. 3 - 11 July 2010. **Spain.**
- 14- Grant from Institute of Astronomy and Space Science (**graduate fellowship; 1 year**), June 2006 - May 2007. **Jordan.**
- 15- Grant from International Astronomical Union for attending the **International School for Young Astronomers**, 2 - 23 July 2004. **Morocco.**

PARTICIPATION IN SCIENTIFIC MEETINGS/WORKSHOPS:

❖ Oral Presentations and Posters:

- **23 May 2024., The 1st Conference of Al-Balqa Applied University on Research Projects**, organized by Deanship of Scientific Research, BAU, Jordan.
- **4-10, Oct. 2023, World Space Week (WSW23)**, Regional Centre for Space Science and Technology for Western Asia. Amman-JORDAN
- **13-17 Feb. 2023, 6th MEARIM 2023: Middle-East and Africa Regional IAU Meeting (MEARIM VI)**, Cairo, Egypt.



- 2-3 Aug. 2022, Focus Meeting-4, **UV Insights to Massive Stars and Young Stellar Clusters**, Korea.
- 8-11 Aug. 2022 **IAU Symposium 370: Winds of stars and exoplanets**, Korea.
- 30 June – 1 July. 2022, European Astronomical Society, (EAS Symposium 5) **Towards the next generation of X-ray surveys with Athena**, Spain.
- 23 – 27 May. 2022. **The Multifaceted Universe: Theory and Observations**, Russia.
- 29 Nov. – 3 Dec. 2021. **IAU Symposium 363: Neutron Star Astrophysics at the Crossroads: Magnetars and the Multimessenger Revolution**, Virtual, **Italy**.
- 8-12 Nov. 2021. **IAU Symposium 362: Predictive Power of Computational Astrophysics as a Discovery Tool**, Virtual, **France**.
- 1-5 Nov. 2021: **IAU Symposium 366: The Origin of Outflows in Evolved Stars**: Virtual Meeting, **Belgium**.
- 23-26 March 2021. **Transient High Energy Sky and Early Universe Surveyor (THESEUS conference)**, European Space Agency (ESA), Virtual, **Italy**.
- 15/4/2021, Tunisia for Young Astronomers Association in Tunisia. **Pulsars, The life after the death. Tunisia.**
- 30/4/2021, Intergalactic club and Theoretical Physics club in Egypt. **Radio Astronomy, Earths eye to the Sky. Egypt.**
- 4-10, Oct. 2020, **World Space Week (WSW20)**, Regional Centre for Space Science and Technology for Western Asia. Amman-JORDAN.
- 18-19, July 2020, **Binary and Multiple Stars: From Observations to Estimations**, Sharjah Academy for Astronomy, Space Science and Technology and Applied Physics and Astronomy department, University of Sharjah, **United Arab Emirates**.
- 10-12 Sep. 2019, **The 1st Summer School 2019 in Astrophysics and Space Science**, Regional Centre for Space Science and Technology for Western Asia. Amman-JORDAN.
- 25-28 March 2019, **United Nations Jordan Workshop Global Partnership in Space Exploration and Innovation**, Regional Centre for Space Science and Technology for Western Asia. Amman-JORDAN.
- 26 Feb. 2019, **Physics Seminar** : Physics Department, Al-Balqa Applied.
- 22 Nov. 2018, **Jordan Astronomical Society**. Jordan
- 1-3 May 2018, **12th Arab Conference on Astronomy and Space Science**; RJGC , Jordan
- 27– 29 Apr.2017:**Humboldt Kolleg**, Amman, Jordan.
- 22– 25 Feb. 2017: **Frontiers in Theoretical and Applied Physics**. **United Arab Emirates**.
- 20 Aug.-10 Sep. 2016: **International Summer School for Young Astronomers** , Iran.
- 30July-7 August 2016:**41stCOSPAR Scientific Assembly**, Istanbul Congress Center **Turkey**.
- 2-10 August 2014 , **40th COSPAR Scientific Assembly**, Moscow, **Russia**.
- 16-19 June 2014:**The X-ray Universe 2014**, Trinity College Dublin, **Ireland**.
- 3 – 5 April 2014: **Humboldt College**, Jordan.
- 24-28 March 2014: **Structure and Signals of Neutron Stars, from Birth to Death**, **Italy**.
- 18 – 20 March 2014: **6th Islamic astronomical conference**: Amman-Jordan.
- 26 – 28 Dec. 2012: **Shanghai Astronomical Observatory meeting**, Shanghai, **China**.
- 20-31Aug 2012: **28thGeneral Assembly of International Astronomical Union**. **China**.
- 14 - 22 July 2012: **39th COSPAR Scientific Assembly**, Mysore, **India**.
- 11 - 15 Oct. 2011: **3rd Galileo-XuGuangqi meeting**. NAOC, Beijing, **China**.
- 3 – 11 July 2010: **Azarquiel Summer School in Astrophysics**, Granada university, **Spain**.



❖ Conferences/Workshops Attendance:

- 31 July-5 Aug. 2023. **3rd Training workshop on the design of an educational satellite (CanSat)- ICESCO-Istanbul Technical University-Turkey.**
- 23-26 Aug. **IAU XXXI 2021 General Assembly. South Korea.**
- 2- 5 May 2019: **4th Inter. Symposium on Dielectric material and Applications, Jordan**
- 9-12 Oct. 2018: **9th Inter. School of Physics(Fundamentals and Applications) Jordan**
- 7-11 Nov. 2017: **World Science Forum (Science for Peace), Dead-Sea, Jordan.**
- 26-28 Sep. 2017: **Yarmouk University Scientific Research Symposium, Jordan.**
- 12-14Sep.2017:**1st Inter. Conf. on Geospatial Information Management, Jordan**
- 6-8Dec.2016:**2^{ed} meeting for Arab Experts on Geographical Names, RJGC, Jordan.**
- 16May2016: **10thAnnual Scientific Research Forum, University of Sharjah, Emirates.**
- 30 - 31 Jan. 2012: **3rd Telescope Access Program Workshop, NAOC, Beijing, China.**
- 5 - 9 Nov. 2012: **Tsinghua Transient Workshop 2012. Tsinghua University, China.**
- 16-17 March 2012: **2nd Telescope Access Program Workshop, NAOC, China.**
- 9-11 May, 2011:**Pulsar Physics and the Application of Pulsars Timing, China.**
- 30 Aug. - 3 Sep. 2010: **MODEST-10 (Modeling Dense Stellar Clusters), China.**
- 15 - 19 Aug. 2010: **General Relativity in Astrophysics, Hebeh Normal Uni., China.**
- 1 - 4 May 2010: **Astrophysics in Compact Systems, Shan Dong University, China.**
- 20-30Sep.2008:**2^{ed} International Summer School for Young Astronomers, Armenia.**
- 27 July -1 Aug. 2008: **Summer School in High Energy Astrophysics, Urbino, Italy.**
- 05 - 15 Sep. 2006: **Summer School in Astronomy "Site Testing", Beirut-Lebanon.**
- 16 - 18 Aug. 2006: **4th Islamic Conference on Astronomy, Amman, Jordan.**
- 15-17 Aug. 2005: **7th Arab Conference Astronomy and Space Science, Jordan.**
- 8 June 2004: **Observing historic Transit of Venus, Hamza Observatory Camp, Jordan.**

❖ Media and Articles:

The media plays a crucial role in disseminating scientific discoveries to the public. However, it often leads to misunderstandings and misconceptions being amplified. Consequently, I have made it my commitment and goal to explain scientific concepts, particularly the scientific method and the observation versus theory approach, to the Arabic-speaking public. I have participated in over 80 TV and radio interviews, both locally and internationally, with networks such as SkyNews, BBC, Al Hadath, AL Arabia, CGTN, and AlMamlaka, etc. During these interviews, I have covered a wide range of public topics in astronomy and space science. In addition, I have posted more than 150 advertisements on my Facebook page promoting physics, astrophysics, and space science programs for PhD, MSc, postgraduate, and training opportunities.

<https://web.facebook.com/ali.taani.71>



❖ SCIENTIFIC ASSOCIATION

- Member of International Astronomical Union (IAU) -France.
- Associate Member of COSPAR, Australia.
- Member of Arab Union for Astronomy & Space Sciences (AUASS), Jordan.
- Member of Jordan Astronomical Society (JAS), Jordan.
- Member of Jordanian Physical Society (JPS), Jordan.
- Member of Jordanian Society for history of sciences , Jordan.
- External Reviewer, Astrophysical Journal (ApJ).
- External Reviewer, Acta Astronomica (AcA).
- External Reviewer, Jordan Journal of Physics (JJP).
- External Reviewer, Physics Letters A Journal.
- External Reviewer, Physics Letters A Natural Science (NS) Journal.
- External Reviewer, Natural Science (NS) Journal.
- External Reviewer, American Journal of Astronomy and Astrophysics (AJAA).
- External Reviewer, Journal of Physics.
- External Reviewer, Journal of Astronomy.

❖ COMMUNITY SERVICE

- Expertise and examiner in astronomy and space science for various local and international organizations such as Al-Balqa Applied University, the Ministry of Education, the Ministry of Higher Education, AstroJo organization, the Iftaa' Department in Jordan, the Jordanian Supreme Judge Department, the Regional Centre for Space Science and Technology for Western Asia, and the Jordanian Geographic Center
 - Technical Program Committee member of 3rd Conf. on Astrophysics and Space Science (APSS 2017), China 2016.
 - Technical Program Committee member of 2ed Conf. on Astrophysics and Space Science (APSS 2016) Thailand, 3-5 Jan., 2017.
 - Local Organization Committee of The Humboldt Kolleg Jordanian Life Sciences for Sustainable Development, 27- 29 Apr. 2017;, Jordan.
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PUBLICATIONS:

A. Refereed Journals:

• 2024

1. M. Abu-Saleem and **A. Taani**. [The chaotic behavior of black holes: investigating a topological retraction in anti-de Sitter spaces](#), **New Astronomy**, Vol. 107, 102149.

• 2023

2. Hussam Aljboor and Ali Taani, [Speckle-interferometric Study of Close Visual Binary System HIP 11253 \(HD 14874\) using Gaia \(DR2 and EDR3\)](#), **Research in Astronomy and Astrophysics (RAA)**, 23, 075018.
3. **Ali Taani**, [Characterizing the Regular Orbits of Binary Pulsars: An Initial Prospection Study](#), **Galaxies**, 11, 44.
4. **Ali Taani**, [The binding energy produced within the framework of the accretion of millisecond pulsars](#), **Chinese Physics C**, Vol. 47, No. 4, 041002
5. Ayman Abu Ghazal, Raghad Abu Radwan, Huda Abu Al-Sondos, Ghazi Al-Ryahi, **Ali Taani**, Odai Allabadi, [A qualitative assessment of the influence of gamma radiation and heating on aluminum using non-destructive examination](#), **Radiation Physics and Chemistry**, Vol. 213, 111210

• 2022

6. M. Abu-Saleem and **A. Taani**. [The boundary homotopy retract on the scalar hairy charged black hole spacetime](#), **Axioms Journal**, 11(12), 745.
7. Anas Abu-Dhaim, **Ali Taani**, Diala Tanineah, Nadeem Tamimi, Mohammad Mardini, and Mashhoor Al-Wardat, [Studying the Physical Parameters of the Stellar Binary System Hip 42455 \(HD 73900\)](#), **Acta Astronomica (AcA)**, vol 72, no 3, p. 171-181
8. **Ali Taani**, Shigeyuki Karino, Liming Song, Chengmin Zhang and Sylvain Chaty. [Determination of wind-fed model parameters of neutron stars in high-mass X-ray binaries](#), **Publications of the Astronomical Society of Australia (PASA)**, 39, E040.
9. **Ali Taani**, Juan Vallejo and Mohammed Abu-Saleem. [Assessing the complexity of orbital parameters after asymmetric kick in binary pulsars](#), **Journal of High Energy Astrophysics (JHEAP)**, 35, Pages 83-90.

• 2021

10. M. Abu-Saleem and **A. Taani**. [Geometric transformations on a topological black hole and their applications](#), **Chinese Journal of Physics**, 74, 53
11. Mashhoor Al-Wardat; Enas Abualrub; Hussein Abdallah; Mardini Mohammad; **Ali Taani**; Hatem Widyan; Zahra Yousef; Hamid Al-Naimiy; Nihad Yusuf. [Physical and geometrical parameters of CVBS XIV: The two nearby systems HIP 19206 and HIP 84425](#), **Research in Astronomy and Astrophysics**, 21, 161
12. Nour Aldein Almusleh, **Ali Taani**, Sergen Ozdemir, Maria Rah, Mashhoor Al-Wardat, Mohammad K. Mardini and Gang Zhao. [Metal-poor Stars Observed with the](#)



[Automated Planet Finder Telescope III. CEMP-no Stars are the Descendant of Population III Stars](#), *Astronomische Nachrichten* (AN), 342, 625.

13. MK Mardini, H Li, VM Placco, **A Taani**, Li, H., Zhao G. [VizieR Online Data Catalog: Metal-poor stars with APF. Obs. II. MW halo stars \(Mardini+, 2019\)](#), VizieR Online Data Catalog [2021yCat..18820027M](#)
14. Yamam Al-Tawalbeh, Abdallah Hussein, Fadi Suleiman, **Ali Taani**, Ahmad Abushattal, Mohammad Mardini, Nihad Yusuf, Mohammad Mardini, Hamid Al-Naimiy, Awni Khasawneh, Mashhoor Al-Wardat. [Precise masses and orbital parameters of the binary systems HIP 11352, HIP 70973, and HIP 72479](#), *Astrophysical Bulletin*, 76, 71–83.
15. M. Abu-Saleem and **A. Taani**, [Retraction and folding on the hyperbolic black holes](#), *AIP Advances*, 11, 015309.

• **2020**

16. Mohammad Mardini, Vinicius Placco, Yohai Meiron, Marina Ishchenko, Branislav Avramov, Matteo Mazzarini, Peter Berczik, Manuel Sedda, Timothy Beers, Anna Frebel, **Ali Taani**, Martina Donnari, Mashhoor Al-Wardat, and Gang Zhao. [Cosmological Insights into the Early Accretion of r-Process-Enhanced stars. I. A Comprehensive Chemo-dynamical Analysis of LAMOST J1109+0754](#), *Astrophysical Journal*, 903, 88.
17. MK Mardini, H Li, VM Placco, S Alexeeva, D Carollo, **A Taani**, I Ablimit. [VizieR Online Data Catalog: Metal-poor stars with APF. I. LAMOST CEMP stars \(Mardini+, 2019\)](#), *VizieR Online Data Catalog*, J/ApJ/875/89. Originally published in: 2019, ApJ, 875, 89M.
18. **Ali Taani**, Ahmad Abushattal, Awni Khasawneh, Nour Almousleh, Mashhoor Al-Wardat. [Probability Distribution of Magnetic field strength through the Cyclotron Lines in High-Mass X-ray Binaries](#), *Jordan Journal of Physic* (JJP), 2020, 13, 243-251.
19. **Ali Taani**, [The Early-phase Distribution of the Milky Way Using K-giant Stars From LAMOST DR5](#), Communications of the Byurakan Astrophysical Observatory (CoBAO), Vol. 67, Issue 2, 2020, pp.349-350 .
20. Nour Aldein Almusleh, Yazan Khrais, **Ali Taani**, [The Origin of LAMOST J1109+7459](#), Communications of the Byurakan Astrophysical Observatory (CoBAO), Vol. 67, Issue 2, 2020, pp.349-350.

• **2019**

21. **Ali Taani**, Mohammad Mardini and Ahmad Abushattal, [The regular dynamics through the finite-time Lyapunov exponent distributions in 3-D Hamiltonian systems](#), *Astronomische Nachrichten*, 340, 847-851
22. Mohammad Mardini, Vinicius Placco, **Ali Taani**, Haining Li and Gang Zhao. [Metal-poor Stars Observed with the Automated Planet Finder Telescope. II. Chemodynamical Analysis of Six Low-Metallicity Stars in the Halo System of the Milky Way](#), *Astrophysical Journal*, 882, 27
23. Mohammad Mardini, Haining Li, Sofya Alexeeva, Vinicius Placco, Daniela Carollo, **Ali Taani**, Iminhaji Ablimit, Liang Wang, and Gang Zhao. [Metal-poor stars observed with the automated planet finder telescope I. Discovery of five Carbon-enhanced metal-poor stars from LAMOST](#), *Astrophysical Journal*, 875, 89.
24. Shigeyuki KARINO, Kenji NAKAMURA and **Ali TAANI**, [Stellar wind accretion and accretion disk formation: applications to neutron star high mass X-ray binaries](#), *Publications of the Astronomical Society of Japan*, Vol. 71, issue 3, P 1-12.



25. **Ali Taani**, Shigeyuki Karino, Liming Song, Mashhoor Al-Wardat, Awni Khasawneh and Mohammad Mardini, [On the possibility of disk-fed formation in supergiant high-mass X-ray binaries](#), **Research in Astronomy and Astrophysics** , Vol. 19, issue, 1, 12

- **2017**

26. Yi-Yan Yang, Li Chen, Rong-Feng Linghu, Li-Yun Zhang and **Ali Taani**, [Constraints on the estimation of the radius of double pulsar PSR J0737-3039A and its neutron star nuclear matter composition](#), **Chinese Physics Letters (CPL)**, 34, 129701.
27. Zhibin Dai, Paula Szkody, **Ali Taani**, Peter Garnavich and Mark Kennedy, [Quiescent photometric modulations of two low-inclination cataclysmic variables KZGem and TWVir](#), **Astronomy and Astrophysics (A&A)**. 606, 45
28. **Ali Taani** and Juan C. Vallejo, [Dynamical Monte-Carlo simulation of 3-D galactic systems in axisymmetric and triaxial potentials](#), 2017, **Publications of the Astronomical Society of Australia (PASA)**), Vol. 34, 24

- **2016**

29. **Ali Taani**, [Systematic comparison of initial velocities for neutron stars in different models](#), 2016, **Research in Astronomy and Astrophysics (RAA)**, 16,101.

- **2015**

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❖ REFERENCES

- **Prof. Liming Song**
Institute of High Energy Physics, Chinese Academy of Sciences 19B YuquanLu,
Shijingshan District, Beijing 100049, China.
[E-mail: songlm@ihep.ac.cn](mailto:songlm@ihep.ac.cn) <http://www.ihep.ac.cn/lt/songlm>
- **Prof. Chengmin Zhang**
National Astronomical Observatories (NAOC), Chinese Academy of
Sciences, Datun Road 20A, Chaoyang District Beijing 100012, China.
[E-mail: zhangcm@bao.ac.cn](mailto:zhangcm@bao.ac.cn) <http://www.bao.ac.cn/lt/zhangcm>
- **Prof. Yongheng Zhao**
National Astronomical Observatories (NAOC), Chinese Academy of
Sciences, Datun Road 20A, Chaoyang District Beijing 100012, China.
[E-mail: yzhao@bao.ac.cn](mailto:yzhao@bao.ac.cn) <http://www.lamost.org/~yzhao>
- **Prof. Ahmad Sami Bataineh**
Dean of Faculty of Science, Dept. of Mathematics, Al Balqa Applied University, Salt



19117, Jordan

E-mail: a_s_bataineh@bau.edu.jo

- **Prof. Marwan S. Mousa**
Dept. of Physics, Mu'tah University,
Al-Karak, Jordan
E-mail: mmmousa@mutah.edu.jo, marwansmousa@yahoo.com

Prof. Dr. Ali Taani

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ALI TAANI