

# Curriculum Vitae

## Personal information

**Name:** Essam Ahmed Ibrahim El kholy

**Date of birth:** Jan. 19, 1966

**Nationality :** Egyptian

**Marital status:** Married

**Address:** National Research Institute of Astronomy and Geophysics  
Astronomy Department - 11421- Helwan-Cairo- Egypt

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## Current Positions

1- Associate Professor

## Previous Positions

1. Associate Professor at Faculty of Science, Northern Broders, Arar, Saudi Arabia

Associate Professor at National Research Institute of Astronomy and Geophysics

**20June 2022- until now**

2. Assistant Professor at Faculty of Science, Northern Broders, Arar, Saudi Arabia

**March 2011 – Until**

3. Researcher and Lecturer at National Research Institute of Astronomy and Geophysics

**April 2004 - March 2011**

4. Visitor Lecturer (part time) at Higher Technological Institute Tenth of Ramadan City,

**September 2008 – Oct. 2010**

5. Researcher Assistant, National Research Institute of Astronomy and Geophysics Helwan,  
Cairo , Egypt

**July, 2003 – April, 2004**

6. Lecturer Assistant, Institute for Astrophysics, Department of Physics, Goettingen  
University, Germany

**April, 2003 – June, 2003**

7. Ph.D. Scholarship from DAAD at Institute for Astrophysics, Department of Physics,  
Goettingen University, Germany.

**October, 2000 – March, 2003**

8. Lecturer Assistant, Institute for Astrophysics, Department of Physics, Goettingen  
University, Germany

**February–October, 2000**

9. Researcher Assistant, National Research Institute of Astronomy and Geophysics, Helwan, Cairo, Egypt **1995 – 1999**

10. Demonstrator, National Research Institute of Astronomy and Geophysics, Helwan, Cairo, Egypt. **1991 – 1995**

**Academic qualifications:**

- 1989 B.Sc. In Physics (Very good 83.4%)  
Special course (LASER) Excellent  
Graduation project (Excellent)  
Faculty of Science, Helwan University, Egypt.
- 1991 Pre M.Sc, (Courses of Pre-Master degree in Applied Physics)  
Faculty of Science, Helwan University.
- 1994 Training course ( 21st ISYA, International Schools for Young Astronomers , Cairo University and Kottamia Observatory, Egypt, September 18 – October 8, 1994
- 1995 M.Sc. in "Physics of Atomic and Molecular Spectra "  
Faculty of Science, Helwan University.  
M. Sc. Title: "Deviation from Thermodynamic Equilibrium for the Neutral Helium Lines up to the Principle Quantum Number  $N=12$  "
- 1996 Ph.D Qualification, (Optics and Laser(  
Courses of Pre-D. Qualification (optics, Plasma Spectroscopy, Spectroscopy) April 1996.
- 1999 Visit at Goettingen University ( 6 months, May – October 1999(  
X-ray Astronomy, MIDAS and EXSAS software access and handle X-ray data from scientific X-ray Satellites.
- 2000 Lecturer Assistant and member in the group of X-ray astronomy at Universitaets-Sternwarte Goettingen ( February – June 2000)
- 2000 Germany Language course, intensive course at Goethe Institute, Goettingen Germany (4 months, June – October 2000 )
- 2003-2000 Ph.D. Scholarship from DAAD (Deutscher Akademischer Dienst Germany Academic Exchange Service) in the field of High energy Astrophysics, Goettingen University, Germany
- October 2000 – March 2003 Lecturer Assistant and member of the group of X-ray astronomy at Universitaets-Sternwarte Goettingen ( April- June 2003)
- 2004 Ph.D., Helwan University, Egypt  
Ph.D Title : "Analysis and Interpretation of ROSAT X-ray Observations of Magnetic Cataclysmic Variables"
- 2004 Lecturer, National Research Institute of Astronomy and Geophysics, 11421 Helwan, Cairo, Egypt .

- 2005            Scientific Visit at Astronomical Institute of the Academy of Sciences of the Czech Republic (Galaxies and Planetary Systems Department) May 2005
- 2007            Scientific Visit at Goettingen University November 2007 (Month)
- 2010            Scientific Visit at Kyoto University, Kyoto, Japan.  
Scientific Visit at Tokyo University, Tokyo, Japan.  
Scientific Visit at the Japan Aerospace Exploration Agency (JAXA) Mitaka, Tokyo, Japan.

### **Research and Teaching Experience**

**Institution:** Physics Department, Faculty of Science, Northern Borders University, Arar, Saudi Arabia (March 2011 - May 2016)

**Job title :** Assistant Professor

**Institution:** Astronomy Department, NRIAG, Egypt (2004-2010)

**Job title :** Researcher and Lecturer

**Research field:** High Energy Astrophysics, Physics and X-Ray Satellites

**Institution:** Dept. of Computer Science, Higher Technological Institute Tenth of Ramadan City, Egypt (2008-2010)

**Job title :** Lecturer

**Research field:** Computer Programming (C++, QBasic), ICDL

**Institution:** Goettingen University , German (1999-2003)

**Job title :** Ph.D. Scholarship from DAAD and Lecturer Assistant

**Research field:** High Energy Astrophysics and X-Ray Satellites

**Institution:** NRIAG, Egypt (1995-1999)

**Job title :** Researcher Assistant

**Research field:** High energy astrophysics, optics, Plasma Spectroscopy

### **Computer Skills :**

Good experience in software analysis of X-ray satellites

**Chandra**        ( CIAO3.4, Sherpa3.4, DS9 and Xspec)

**ROSAT**        (MIDAS and EXSAS)

**XMM**            (Xspec)

**Unix, Linux operating system in PC and work-station.**

**FORTRAN , BASIC and C++**

**Windows and M.S Office**        .

**Languages:**        English    : Fluent  
                          Germany : Good  
                          Arabic    : Native Language

## List of Publications

1. Fractional Order Analysis of the Polytropic Models. Applied to Exoplanets  
Essam Elkholy, Mohamed I. Nouh  
Bulgarian Astronomical Journal Volume 38 (2023)
2. Essam A. Elkholy, W. H. Elsanhoury, and M. I. Nouh<sup>2</sup>  
Orbits and Individual Masses of Some Visual Binaries  
*Astrophysics, Vol. 64 No. 1, 53-64 (2021)*
3. Emad. A. B Abdel-Salama , Mohamed. I. Nouh, Essam A. Elkholy  
Analytical Solution to the Conformable Fractional Lane-Emden Type Equations Arising in Astrophysics  
Scientific African, Volume 8, July 2020, e00386
4. Moqbil S. Alenazi , Ayman Mahrous , Ibrahim Fathy , Mohamed Nouh , Essam Elkholy , Magdy Elkhateeb  
First Results of Arar-Magnetometer Station in Saudi Arabia  
Advances in Space Research Volume 65, Issue 5, Pages 1439-1446, 1 March 2020
5. Magdy Elkhateeb, Raul Michel, Aly Haroon, **Essam Elkholy**  
Light Curve Modelling and Evolutionary Status of the Short Period Binary 1SWASP J092328.76+435044  
Astrophysical Bulletin, Volume 73, Issue 1, pp.66-76, 2018
6. Abdel-Sabour ,M\*1,2, Sanad, M.R 1 , Benday, R1 and Elkholy, E1  
Frequency analysis of short periodic Cepheid BD+13 218 as Seen from SMEI Observations  
Journal of Physics and Astronomy Volume 5 iss3 2017
7. E. Elkholy and M. I. Nouh.  
"ROSAT X-ray Analysis of the AM Her Cataclysmic Variable VV Pup"  
Astrophysical Bulletin, Volume 70, Issue 3, pp.333-341, 07/2015
8. M. M. Elkhateeb, M. I. Nouh, E. Elkholy and B. Korany  
"An Extensive Photometric Investigation of the W UMa System DK Cyg,"  
Journal of Astrophysics, Volume 2015 (2015), Article ID 590673, 8 pages
9. M. Abdel-Sabour Mohamed, A. Ibrahim , Essam Ahmed Elkholy and M. Elkhateeb; Fourier  
Decomposition, amplitude stability and period change for six Low Amplitude Cepheids., Rom. Ast.  
J., 25,2, p.157, 2015.
10. Mohamed Nouh, Somaya Saad, Ibrahim Zaid, and Magdy Elkhateeb, Essam Elkholy  
"Spectroscopic of the double-lined Eclipsing Binary alpha Vir"  
Romanian Astron. J. , Vol. 23, No. 1, p. 3–13, Bucharest, 2013
11. Essam Elkholy, Klaus Beuermann, and Klaus Reinsch  
"X-ray Properties of Some Magnetic CV"  
The proceedings of the Physics of Accreting Compact Binaries  
Universal Academy Press, Inc.(2010) Japan.
12. B. A. Korany, E. El kholy and Ismail H. A "Soft X-Ray excess in AGN "  
The Journal of the Astronomical Society of Egypt. 2009.
13. E Elkholy, E.A. and Shaker A. A .  
"X-ray Properties of Shakhbazian Compact Galaxies Groups"  
The Journal of the Astronomical Society of Egypt. 2009
14. B. A. Korany, E. El kholy, Randall k.Smith and M. I. Nouh  
"Chandra High Resolution Spectroscopy Analysis Of AM Herculis"  
The Journal of the National Res. Inst. of Astronomy Geophysics Ser.2008

15. Reinsch, Klaus; Beuermann, Klaus; Burwitz, V.; El Kholy, E.; Schwarz, R.; Schwobe, A.; Traulsen, I.; Walter, F. "Soft X-ray emission of polars"  
"The X-ray Universe 2008" Symposium held in Granada, Spain, 27-30 May, 2008;
16. K. Beuermann, E. El Kholy, and K. Reinsch  
"Soft X-ray spectral Variability of AM Herculis "  
Astronomy and Astrophysics, Volume 481, Issue 3, 2008, pp.771-776
17. M.A.Sharaf, H.I.Abdel-Rhman. A.A.Shaker. I.A.Issa, E.A.Elkholy  
Statistical Approach for Distance determination of some Open clusters and Associations"
18. Sharaf, M. A., Selim, H. H., El kholy E. A., " Associatated Legendre Functions Symbolic computation" m  
Romanian Astronomical Journal, Vol.16 (2006) no.2
19. Saad, S. M., Nouh, M. I., Elkhateeb, M. M. and Elkholy, E. A., 2004, "Light Curve Analysis of the New  
Eclipsing Binary GSC 04371-0161", NRIAG Journal of Astronomy and Astrophysics, Special Issue