



# Imad Ahmed Hussain AL-Ibrahimi

## Nuclear Astrophysics

📍 Iraq/ Dohuk/Avro city



### Profile

*More than 15 years as a knowledgeable and effective academic in astrophysics working with individual, group, and facilities, with extensive experience in nuclear astrophysics, celestial mechanics, Solar system and solar winds.*



### Employment History

Lecturer at University of Mosul, IRAQ  
December 2005 – Now

Coordinator of Physics Department at University of Mosul, IRAQ  
November 2015 – March 2016

A member in the Central Examination Committee at University of Mosul (the substituted location in Sulaymaniyah), IRAQ  
2014 – 2016

Head of Unit of Performance Assessment at University of Mosul, IRAQ  
July 2008 – February 2010

Head of the Scientific Club in Mosul, IRAQ  
October 2003 – January 2005



### Education

Doctor of Philosophy, Voronezh State University, Russian  
February 2010 – November 2013  
*Beta-Processes In The Intensive Thermal Field And A Model Of The Synthesis Of P-Elements In Massive Stars.*

Master of Science (M.Sc.) in Celestial Mechanics, University of Baghdad, IRAQ  
October 2000 – August 2003  
*Secular And Long Period Variations Of Earth Orbital.*

Dip. , in Physics Teaching Methods, University of Mosul, IRAQ  
October 1999 – September 2000  
*Using Kumar System In Analyzing The Classroom Interaction Of The Male And Female Teachers Of Physics And Its Role In The Scientific Fifth Class Pupils Acquisition Of The Science Processes Skills*

Bachelor of Science (B.Sc.), University of Mosul, IRAQ  
October 1990 – July 1998



### Courses

Introduction to Programming with MATLAB, an online non-credit course authorized by Vanderbilt University and offered through Coursera  
February 2020 – April 2020

Exploratory Data Analysis with MATLAB, an online non-credit course authorized by MathWorks and offered through Coursera  
April 2020 – May 2020

Center of Russian Language for Foreigners, Voronezh State University, Russian  
February 2010 – March 2011

Advanced Teaching Methods, University of Mosul, IRAQ  
January 2006 – February 2006

### Details

Iraq/ Dohuk/Avro city

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[imad\\_ahmad2003@yahoo.com](mailto:imad_ahmad2003@yahoo.com)

DATE / PLACE OF BIRTH

1972/07/20

IRAQ-Mosul

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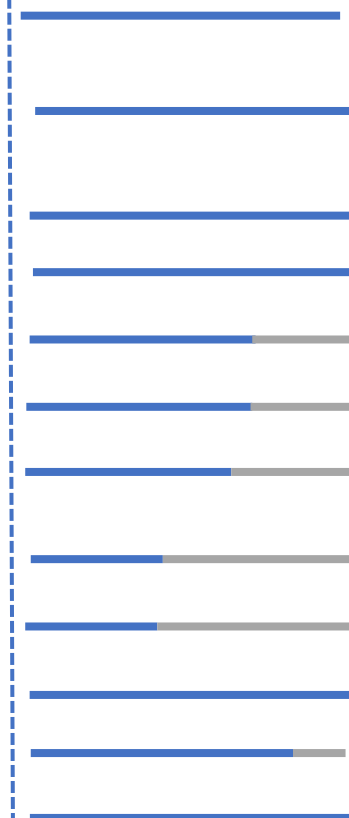
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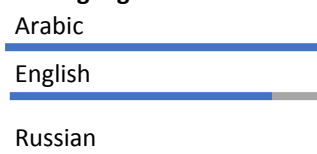
### Social Profiles

**ResearchGate**  
[https://www.researchgate.net/profile/DrImad\\_Hussain/experience](https://www.researchgate.net/profile/DrImad_Hussain/experience)

**Google Scholar**  
<https://scholar.google.com/citations?user=xO75plgAAAAJ&hl=en>



### Languages



### Hobbies

Swimming

I.V. Kopytin, Imad A. H. Al-Hayali, " Ionization Degree Of Atomic K-Shell And Rate Of P-Nucleus Synthesis in Massive Star Interior " , LXV International Conference "Nucleus 2015", Saint-Petersburg, Russia, June 29- July 3 ,2015, – Book of Abstracts. – Saint-Petersburg , P. 151 ,2015.

I.V. Kopytin, Imad A. H. Al-Hayali, " Effect Of Intensely Heated Medium On Branching Coefficients For Multibeta-Decay Nuclei " , LXV International Conference "Nucleus 2015", Saint-Petersburg, Russia, June 29- July 3 ,2015, – Book of Abstracts. – Saint-Petersburg , P. 150 ,2015.

I.V. Kopytin, Imad A. H. Al-Hayali, " Dependence Of Branching Coefficients For Multidecay Nuclei From K-Shell Population Of Their Atoms in Strongly Heated Medium" , LXIV International Conference "Nucleus 2014", Minsk, Belarus, July 1-4 ,2014, – Book of Abstracts. – Minsk , P. 43 ,2014.

I.V. Kopytin, A.S. Kornev, Imad A. H. Al-Hayali, " Effect Of Atomic Ionization On P-Nucleus Synthesis Rate in Extremely Heated Substance Of Massive Star" , LXIV International Conference "Nucleus 2014", Minsk, Belarus, July 1-4 ,2014, – Book of Abstracts. – Minsk , P. 44 ,2014.

I.V. Kopytin, Imad A. Hussain, "Beta processes in high-temperature field and nuclear multibetadecays", LXIII International Conference "Nucleus 2013", Moscow, Russia, October 8-12,2013, – Book of Abstracts. – Saint-Petersburg , P. 42 ,2013.

I.V. Kopytin, A.S. Kornev, Imad A. Hussain, " Stimulation of stable isotope beta-decay by powerful heating of substance and p-nucleus synthesis in massive stars" , LXIII International Conference "Nucleus 2013", Moscow, Russia, October 8-12,2013, – Book of Abstracts. – Saint-Petersburg , P. 44 ,2013.

I.V. Kopytin, A.S. Kornev, Imad A. Hussain, " On the problem of p-nucleus synthesis possibility at quasiequilibrium stages of massive-star evolution" , LXIII International Conference "Nucleus 2013", Moscow, Russia, October 8-12,2013, – Book of Abstracts. – Saint-Petersburg , P. 43 ,2013.

I.V. Kopytin, A.S. Kornev, Imad A. Hussain, "Влияние ионизации атомов в сильно нагретом веществе массивной звезды на скорость процесса синтеза р-изотопов", XX Conference on Fundamental Atomic Spectroscopy (FAS-XX) , Voronezh, Russia , 23 - 27 September, 2013, pp.146-148,2013.

I.V. Kopytin, Imad A. Hussain, " Зависимость распадных характеристик ядер от заполненности к-оболочек их атомов в сильно нагретом веществе", XX Conference on Fundamental Atomic Spectroscopy (FAS-XX) , Voronezh, Russia , 23 - 27 September,2013, pp.146-148,2013.

I.V. Kopytin, T.A. Krylovetskaya, Imad A. Hussain, "Role of Endothermic Beta Decays in Abundance Forming Processes of  $^{113}\text{In}$  and  $^{115}\text{Sn}$  Nuclei", LXII International Conference "Nucleus 2012", Voronezh, Russia, 25-30 June,2012,– Book of Abstracts. – Saint-Petersburg , P. 161,2012.

I.V. Kopytin, T.A. Krylovetskaya, Imad A. Hussain, " Thermic Beta Decay and Problem of p-Nuclei  $^{113}\text{In}$  and  $^{115}\text{Sn}$ ", LXII International Conference "Nucleus 2012", Voronezh, Russia, 25-30 June,2012, – Book of Abstracts. – Saint-Petersburg , P. 162,2012.



## Resent Publications

Imad A. H. Al-Hayali, Wafaa H. A. Zaki and Shadan S. Salih "Verifying the Relationship between Solar Neutrinos and Solar Wind for Solar Cycle 23", Journal of Radiation and Nuclear Applications, Vol.4 65-72 2, No. 1, pp.65-72, Jan 2019.

Atef El-Taher, Laith Ahmed Najam, Imad Hussian, Mohammed Ahmed, Ali Omer "Evaluation of Natural Radionuclide content in Nile River Sediments and Excess Lifetime Cancer Risk Associated with Gamma Radiation", Iranian Journal of Medical Physics, Vol.16, Issue 1, pp.27-33, May 27, 2018

I.V. Kopytin, Imad A. H. Al-Hayali, "Change of Nuclear Beta-Decay Characteristics in Strongly Heated Substance and p-Element Synthesis in Massive Stars", Journal of Radiation and Nuclear Applications, Vol. 2, No. 1, pp.1-10, Jan 2017.

I.V. Kopytin, Imad A. H. Al-Hayali, "Stimulation of Stable Isotope Beta-Decay by Powerful Heating of Substance and p-Nucleus Synthesis in Massive Stars", International Journal of Recent Research and Review, Vol. IX, Issue 2-pp.53-63, June 2016.

I.V. Kopytin, Imad A. H. Al-Hayali, "On the Issue of p-Nucleus Synthesis Possibility at Quasi-Equilibrium Stages of Massive-Star Evolution", International Journal of Recent Research and Review, Vol. IX, Issue 2-pp.46-52, June 2016.

I.V. Kopytin, Imad A. Hussein, "Beta Processes In A High-Temperature Field And Nuclear Multibeta Decays", Physics of Atomic Nuclei, Russian, Vol. 76, No.11, pp. 1315–1323, 2013.

I.V. Kopytin, Imad A. Hussein, "Role Of Thermal And Photo-Beta Decays In Nucleosynthesis Processes In Massive Stars Of "Problem"  $^{113}\text{In}$ ,  $^{115}\text{Sn}$ ,  $^{92,94}\text{Mo}$ ,  $^{96,98}\text{Ru}$ , P-Nuclei", Physics of Atomic Nuclei, Russian, Vol. 76, No. 4. – pp. 476–488, 2013.

Kopytin I. V., Kornev A. S., Imad A. Hussein "Бета-распадный закон в изобарной триаде и синтез р-элементов в сильно нагретом веществе массивных звезд", Proceedings of Voronezh State University. Series: Physics. Mathematics, Russian, «Press of Russia», No.2- pp. 56-67, 2013.

I.V. Kopytin, Imad A. Hussein, "Бета-процессы в высокотемпературном поле и синтез р-элементов в звездах", Proceedings of Voronezh State University. Series: Physics. Mathematics, Russian, «Press of Russia», No.1- pp. 48-62, 2013.

I.V. Kopytin, T.A. Krylovetskaya, Imad A. Hussein, "Термический бета-распад и проблема р-ядер  $^{113}\text{In}$  и  $^{115}\text{Sn}$ ", Proceedings of Voronezh State University. Series: Physics. Mathematics, Russian, «Press of Russia», No.1 – pp. 34-41, 2012.