



Fami Rafiz-oghlu MUSTAFA

- **Date and place of birth:** 24 November 1981, Afurja, Guba region, Azerbaijan
- **Nationality:** Azerbaijani
- **Citizenship:** The Republic of Azerbaijan
- **Sex:** Male
- **Education:**
 - September 1989 – July 1999 – High-secondary school, Afurja, Guba, Azerbaijan;
 - August 1999 – July 2003 – Faculty of Physics, Baku State University, Baku, Azerbaijan; graduated with Bachelor Degree;
 - August 2003 – July 2005 – Department of Astrophysics, Faculty of Physics, Baku State University, Baku, Azerbaijan; graduated with First-Class Honors Magistrate Degree (Master Science Degree);
 - December 2006 – December 2008 - PhD student at the Shamakhy Astrophysical Observatory named after Nasiraddin Tusi (ShAO), Azerbaijan National Academy of Sciences (ANAS).
- **Work experience:**
 - October, 2002 – August, 2004
“Link&A” – Azerbaijani–Turkish Joint Venture
Position: Software developer
 - June, 2003 – July, 2005
Shamakhy Astrophysical Observatory named after Nasiraddin Tusi (ShAO), Azerbaijan National Academy of Sciences (ANAS),
Position: Laboratory assistant
- **Current employment:**
 - July, 2005 - Present
Shamakhy Astrophysical Observatory named after Nasiraddin Tusi (ShAO), Azerbaijan National Academy of Sciences (ANAS),
Position: Junior scientific researcher
- **Membership:**
 - Member of the Space Association of Turkic States (SATS) (2003),
 - Member of the American Geophysical Union (AGU) (2007)
- **Participation and/or presentation in the conference, symposium and workshops:**
 - “Solar System Researches: perspectives of collaboration with ShAO”, ShAO, Shamakhy, Azerbaijan 14-17 June, 2004
 - Memorial international conference “Astronomy and Space Physics at Kyiv university”, Kiev, Ukraine May 22-26, 2005
 - International Symposium "Astronomy - 2005: Current State and Prospects", Moscow, Russia 1-6 June, 2005
 - International Heliophysical Year (IHY) Regional planning meeting for the Balkan and Black Sea region, Sozopol, Bulgaria, 6-8 June 2005
 - Annual Meeting of the Balkans, Black Sea and Caspian Sea Regional Network on Space Weather Studies, Manavgat - Antalya, TURKEY, March 30 - April 1, 2006

- WORKSHOP INTAS South- Caucasus 2007 Collaborative Call INTAS -South Caucasus 2006 & Projects for the EU - South Caucasus Scientific Cooperation, Tbilisi, Georgia, 28-30 March 2007
- Young Scientists' International School: "Heliosphere and Galaxy", Sinaia, Romania, 03-05 May 2007
- Management Committee Meeting and Scientific Event COST Action 724 "Developing the basis for monitoring, modeling and predicting Space Weather" Sofia (Bulgaria), 21-25 May 2007
- SENS 2007, Third Scientific Conference With International Participation, SPACE, ECOLOGY, NANOTECHNOLOGY, SAFETY, Varna, Bulgaria, 27- 29 June 2007
- SCOSTEP's International CAWSES Symposium, 23 – 27 October 2007, Kyoto, Japan
- International Heliophysical Year -2007 International Symposium "New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia
- UN / NASA / ESA / JAXA Workshop on the International Heliophysical Year 2007 and Basic Space Science "First Results of IHY 2007" hosted by the Solar-Terrestrial Influences Laboratory at the Bulgarian Academy of Sciences on behalf of the Government of Bulgaria, 02-06 June 2008, Sozopol, Bulgaria
- International Tusi Conference on Astrophysics Devoted to the Maragha Observatory's 750 years Anniversary & 50 years jubilee of ShAO, 23-25 May 2009, Maragha, Tabriz, I.R.Iran
- The First IHY International Workshop on Advancing Very Low Frequency (VLF) Science Through the Global AWESOME Network, 30 May – 1 June 2009, Tunis, Tunisia

- **Research interests:**

- Astronomy, astrophysics; Solar-terrestrial relations, Space Weather hazards;
- History of astronomy and science;

- **Scientific publications (papers and abstracts):**

- Babayev E.S, Khalilov A.M., Mustafa F.R., Guliyev Y.A., Asgarov A.B. "On possible influence of changes of heliogeophysical conditions on beekeeping". In: Proceedings of the International Conference: Solar System Researches: perspectives of collaboration with ShAO, ShAO, Shamakhy, Azerbaijan, 14-17 June, 2004 (ISBN: 9952 8003 2-0), Baku: PH "Elm", 2004, pp.44-49.
- Babayev E.S., Gigolashvili M. Sh., Mustafa F. R., Ramishvili G.T., Tagizade F.J., Aliyeva S.S., Mikayilova S.-Z.M.-K. "An influence of solar activity on the sudden cardiac death". In: Circular of the Shamakhy Astrophysical Observatory (ISSN: 0135-0420), 2005, №-109, pp.72-79.
- Mustafa F.R., Asgarov A.B., Babayev E.S., Changes of heliogeophysical conditions and their possible influence on the beekeeping, 12-th Young Scientist's Conference on Astronomy and Space Physics (19-23 April 2005, Kyiv, Ukraine), Kyiv: PH "Kyiv University", 2005, pp.69-70.
- Babayev E.S, Asgarov A.B., Mustafa F. R. "Space Weather impacts on technological and biological systems: results of studies carried out in Azerbaijan (mid latitudes)" Memorial international conference Astronomy and Space Physics at Kyiv university, Kiev, Ukraine May 22-26, 2005
- Samedov Z.A., Mustafa F.R., "Determination of effective temperature and gravitational acceleration on the surface of stars π^3 Ori and 110 Her" International Symposium "Astronomy - 2005: Current State and Prospects, Moscow, Russia 1-6 June, 2005
- E.S.Babayev, F.R.Mustafa, P.N.Shustarev, A.B.Asgarov. An influence of solar and geomagnetic activity on honey bees and world honey production. News of Baku University, series Physical-mathematical sciences (ISSN 1609-0586), 2006, vol. 1, pp.218-228.
- E. Stoupel, E.S.Babayev, F.R.Mustafa, E.Abramson, P.Israelevich, J. Sulkes. Clinical Cosmobiology - Sudden Cardiac Death and Daily / Monthly Geomagnetic, Cosmic Ray and Solar Activity - the Baku Study (2003-2005). Sun and Geosphere. The International Journal of Research and Applications (ISSN 1819-0839), vol.1, No2, 2006, cc. 13-16.
- E. Stoupel, E.S.Babayev, F.R.Mustafa, E.Abramson, P.Israelevich, J. Sulkes. Clinical Cosmobiology - Sudden Cardiac Death and Daily / Monthly Geomagnetic, Cosmic Ray and Solar Activity - the Baku Study (2003-2005). Abstract Book of The 8th International Dead Sea Symposium (IDSS) in Memory of Seymour Furman, The 17th Rappoport Symposium – A Joint

- Meeting “Consensus and Controversy in Cardiac Arrhythmias - 2006”, 15-18 October 2006, Tel-Aviv, Israel, p. 93.
- F.R.Mustafa, E.Stoupel,E.S.Babayev. On Possible Influence of Space Weather on the Sudden Cardiac Death and Acute Myocardial Infarction –Baku Study. The 6-th G.Gamow’s Odessa Astronomical Summer School “Astronomy and beyond: Astrophysics, Radioastronomy, Cosmology and Astrobiology”, Ukraine, Odessa, Chernomorka, 1-5 August, 2006.
 - E. Stoupel, E. Babayev, F. Mustafa, E. Abramson, P. Israelevich, J. Sulkes. Acute myocardial infarction occurrence: Environmental links – Baku 2003–2005 data, *Med Sci Monit*, 13(8): BR175-179, 2007.
 - E.S.Babayev, F.R.Mustafa, P.N.Shustarev. Space weather and beekeeping. *Russian Beekeeping Journal*, No1, pp. 12-15, 2007,
 - E.S. Babayev, F.R.Mustafa, A.A.Allahverdiyeva, P.N.Shustarev. An influence of changes of heliogeophysical conditions on biological and ecological systems: some results of studies conducted in the Azerbaijan National Academy of Sciences. *Sun and Geosphere. The International Journal of Research and Applications (ISSN 1819-0839)*, vol.2, No1, 2007, cc. 14-18.
 - A.S. Guliyev, F.R. Mustafa, E.S. Babayev, P.N. Shustarev. Solar activity and brightness curves of comets 29P/Schwassmann- Wachmann and 1P/Halley. 2007, *Natural Cataclysms and Global Problems of the Modern Civilization. Special edition of Transactions of the International Academy of Science Health & Ecology, Baku-Innsbruck*, pp.339-348.
 - Dimitrova, F.R. Mustafa, I. Stoilova, E.S. Babayev, E. Kazimov, Possible influence of solar extreme events and related geomagnetic disturbances on human physiological state: results of collaborative Bulgarian-Azerbaijani studies, *Advances in Space Research*, 2008, doi:10.1016/j.asr.2008.09.006
 - E.S. Babayev, V.N. Obridko, V.V. Asadov, F.R. Mustafa, P.N. Shustarev, A.R. Allahverdiyev, Possible influence of space weather changes on dynamics of traffic accidents in middle latitudes, *Russian journal of Solar-Terrestrial Physics*,v.2, n.12, 2008, pp. 341-344.
 - S. Dimitrova, F.R. Mustafa, I. Stoilova, E.S. Babayev, V.N. Obridko, K. Georgieva, T. Taseva, S.S. Aliyeva, Heliogeophysical activity and mortality from acute myocardial infarctions: results of collaborative Bulgarian-Azerbaijani studies, *Russian journal of Solar-Terrestrial Physics*, v.2, n.12, 2008, pp. 345-350.
 - E. Stoupel, E.S. Babayev, F.R. Mustafa, E. Abramson, P. Israelevich, J. Sulkes, Two groups of acute cardiac events and environmental physical activity, *Russian journal of Solar-Terrestrial Physics*, v.2, n.12, 2008, pp. 355-360.
 - E.S.Babayev, V.G.Kuznetsov, A.M.Hashimov, N.A.Yusifbeyli, A.B.Asgarov, P.N.Shustarev, F.R.Mustafa. Technological, socio-economic and ecological aspects of space weather impacts on the normal operation of oil and gas pipeline systems and reliability of electric power supply grids in Azerbaijan and South Energy Corridor region. *Euro-Asian Journal of Sustainable Energy Development Policy, PROMITHEAS-2 The EU-BSEC Energy and Climate Policy Network, Greece*, 2008
 - H. Mavromichalaki, M. Papailiou, S. Dimitrova, E. S. Babayev, F. R. Mustafa. Geomagnetic Disturbances and Cosmic Ray Activity in Relation To Human Physiological Parameters: A Wide Collaboration, *Proceedings of the 21st European Cosmic Ray Symposium in Košice*.
 - E. Babayev, A. Hashimov, A. Guliyev, F. Mustafa, P. Shustarev, A. Asgarov, Space weather effects studies in Azerbaijan: potential impacts on geosphere, biosphere and periodic comets. *Proceedings of the Third Scientific Conference with International Participation Devoted to the 50-th anniversary of the first artificial satellite of the Earth "Space – Ecology - Nanotechnology – Safety" (SENS-2007)*, ISSN 1313 – 3888, Space Research Institute – Bulgarian Academy of Sciences, Sofia, Bulgaria, 2008, pp.363-368.
 - E. Stoupel, M. Famil, B. Elchin, A. Evgeny, I. Peter, S. Jaqueline. External triggers of sudden cardiac death (SCD). Special Abstract Issue for the 3rd Annual Congress of the European Cardiac Arrhythmia Society. *Journal of Interventional Cardiac Electrophysiology (ISSN 1383-875X)*, DOI: 10.1007/s10840-007-9103-3, Volume 18, Number 1 / January, 2007, p. 99.
 - E.S.Babayev, V.G.Kuznetsov, A.M.Hashimov, N.A.Yusifbeyli, A.B.Asgarov, P.N.Shustarev, F.R.Mustafa, Technological, Socio-Economic and Ecological Aspects of Space Weather impacts on the normal operation of oil and gas pipeline systems and reliability of electric power supply grids in Azerbaijan and South Energy Corridor region. *International Workshop PROMITHEAS-2 The EU-BSEC Energy and Climate Policy Network, Baku, Azerbaijan, 11 April 2007*.

- E. Babayev, A. Hasimov, A. Guliyev, F. Mustafa, P. Shustarev, A. Asgarov. Space Weather Effects Studies in Azerbaijan: Potential Impacts on Geosphere, Biosphere and Periodic Comets. SENS 2007, Third Scientific Conference With International Participation SPACE, ECOLOGY, NANOTECHNOLOGY SAFETY, 27- 29 June 2007, Varna, Bulgaria, Abstract Book, p. 129.
- O.V.Khabarova, E.S.Babayev, V.N.Obridko, E.A.Kazimov, A.B.Asgarov, F.R.Mustafa, Influence of space weather changes on human health state. IUGG XXIV General Assembly: Earth, Our Changing Planet”, 2-13 July 2007, Perugia, Italy.
- S. Dimitrova, F.R. Mustafa, I. Stoilova, E.S. Babayev, E. Kazimov, Possible influence of solar extreme events and related geomagnetic disturbances on human physiological state: results of collaborative Bulgarian-Azerbaijani studies. International Symposium Solar Extreme Events (SEE-2007): Fundamental Science and Applied Aspects, 24-27 September 2007, Athens, Greece, Abstract Book, p. 59.
- F. Mustafa, S. Dimitrova, E. Babayev, I. Stoilova, V. Obridko, and K. Georgieva. Possible Effects of Solar and Geomagnetic Activity on Accidents. The International CAWSES Symposium, 23 – 27 October 2007, Kyoto, Japan, Abstract Book, p. 108.
- S. Dimitrova, F. Mustafa, I. Stoilova, E. Babayev, K. Georgieva, V. Obridko, S. Aliyeva, T. Taseva. Solar Activity, Different Geomagnetic Storms and Acute Myocardial Infarctions: Results of Collaborative Bulgarian-Azerbaijani Studies. The International CAWSES Symposium, 23 – 27 October 2007, Kyoto, Japan, Abstract Book, p. 138.
- E. Babayev, F. Mustafa, V.N.Obridko, O.V.Khabarova, I.Stoilova, S. Dimitrova, A.B.Asgarov, P.N.Shustarev . Results of Azerbaijani and Collaborative Regional Studies on Space Weather Potential Influence on Human Health and Physiological State. The International CAWSES Symposium, 23 – 27 October 2007, Kyoto, Japan, Abstract Book, p. 166.
- S. Dimitrova, F.R. Mustafa, I. Stoilova, E.S. Babayev, V.N. Obridko, K. Georgieva, T. Taseva, S.S. Aliyeva, Heliogeophysical activity and mortality from acute myocardial infarctions: results of collaborative Bulgarian-Azerbaijani studies. International Heliophysical Year -2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, pp. 27-28.
- E.S. Babayev, V.N. Obridko, V.V. Asadov, F.R. Mustafa, P.N. Shustarev, A.R. Allahverdiyev, Possible influence of space weather changes on dynamics of traffic accidents in middle latitudes. International Heliophysical Year -2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, pp. 8-9.
- O.V. Khabarova, M.V. Ragoulskaya, E.S. Babayev, V.N. Obridko, S.N. Samsonov, E.A. Kazimov, A.B. Asgarov, F.R. Mustafa, E.E. Kazimova, Collaborative experimental studies of influence of space weather changes on human health state in different latitude and longitudes. International Heliophysical Year -2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, p. 53.
- F.R. Mustafa, E.S. Babayev, S. Dimitrova, I. Stoilova, V.N. Obridko, K. Georgieva, S.S. Aliyeva, Geomagnetic disturbances of various strengths and dynamics of sudden cardiac death in the middle latitudes. International Heliophysical Year -2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, pp. 83-84.
- V.N.Obridko, E.S.Babayev, E.A.Kazimov, N.B.Crosby, F.R.Mustafa, S.Dimitrova, I.Stoilova, E.E.Kazimova, A.B.Asgarov, Experimental studies of possible influence of solar and geomagnetic disturbances on human cardio-health state in middle latitudes. International Heliophysical Year - 2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, pp. 87-88.
- E. StoupeI, E.S. Babayev, F.R. Mustafa, E. Abramson, P. Israelevich, J. Sulkes, Two groups of acute cardiac events and environmental physical activity. International Heliophysical Year -2007 International Symposium “New Insights in Solar-Terrestrial Physics (NISTP), 5-11 November 2007, Zvenigorod, Moscow Region, Russia, Abstract Book, pp. 121-122.
- Famil R. Mustafa, Dimitrova S., Elchin S.Babayev , Stoilova, Taseva T., Georgieva K., Geomagnetic Storms and Acute Myocardial Infarctions Morbidity in Middle Latitudes, Abstract book of the UN/ESA/NASA/JAXA Workshop on the International Heliophysical Year 2007 and Basic Space Science "First Results from the International Heliophysical Year 2007“, p. 68. 2008.

- Dimitrova S., Babayev E.S., Mustafa F.R., Stoilova I., Georgieva K., Obridko V.N., Aliyeva S.S., Possible Effects of Solar and Geomagnetic Activity on Sudden Cardiac Death, Abstract book of the UN/ESA/NASA/JAXA Workshop on the International Heliophysical Year 2007 and Basic Space Science "First Results from the International Heliophysical Year 2007", p. 71. 2008.
 - H. Mavromichalaki, M. Papailiou, S. Dimitrova, E. S. Babayev, F. R. Mustafa. Geomagnetic Disturbances And Cosmic Ray Activity In Relation To Human Physiological Parameters: A Wide Collaboration, http://ecrs2008.saske.sk/show_abstract.php?sesion=4.08
- **Educational Training**
 - 2 months (May 2007- June 2007) educational training at the Solar-Terrestrial Influences Laboratory at the Bulgarian Academy of Sciences
 - 2 months (May 2008- June 2008) educational training at the Kandilli Observatory and Earthquake Research Institute, Bogazici University Turkey
- **Grant award:**
 INTAS – Young Scientist Fellowship Collaborative Call with Azerbaijan 2006, Ref. Nr 06-1000015-6408, <http://www.nip-fp6.ab.az/en/index.php?go=ysfen.html>.
 - **NIS supervisor:**
 Dr.As. Prof. Elchin S. BABAYEV (Shamakhy Astrophysical Observatory named after N.Tusi, Azerbaijan National Academy of Sciences, Azerbaijan)
 - **INTAS supervisor:**
 Dr Katya Georgieva (Solar-Terrestrial Influences Institute at the Bulgarian Academy of Sciences, Bulgaria)
 Dr Atila OZGUC (Kandilli Observatory and Earthquake Research Institute, Bogazici University, Turkey)
- **Contact addresses:**
 - Air-mail address: P.O. Box 153, Central Post Office, Baku, AZ-1000, Azerbaijan Republic;
 - E-mails: famil_m@yahoo.com, famil.mustafa@gmail.com;
 - Personal web-page: www.shao.az/fmustafa;
 - Fax: + (994 12) 510 82 91
 - Tel: + (994 50) 4400755 (mobile); + (994 12) 439 82 48 (office) ; + (994 12) 510 82 91 (office)