Curriculum Vitae

Update (August 6, 2022)

PERSONAL DATA:

First Name: Seyedzafarollah
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Date of Birth: 29 Jan. 1965
Nationality: Iranian
Place of Birth: Ahvaz, Iran
Sex: Male
Marital Status: Married
Number of Children: Two

ACADEMIC DEGREES:

- Ph.D. in Physics, Shiraz University, Shiraz, Iran, 1992-1996.
  Ph.D. Thesis: Effects of Spin Polarization, Tritium Concentration and Sticking Coefficients on Fusion Dynamics.

- M.Sc. in Physics, Shiraz University, Shiraz, Iran, 1989-1991.
  M.Sc. Thesis: Formulation of Electrodynamics by Considering magnetic Monopoles.

- B.Sc. in Physics, Shiraz University, Shiraz, Iran, 1984-1989.

ACADEMIC POSITION:

- Professor, 2015- present, Isfahan University of Technology.
- Associate Professor, 2005-2014, Isfahan University of Technology.
- Assistant Professor, 1996-2004, Isfahan University of Technology.

ADMINISTRATIVE POSITION:

- Head of Department of Physics, Isfahan University of Technology (2020-present).
- Managing Editor of Iranian Journal of Physics Research (2021-present).
- Vice–President for Student Affairs, Isfahan Univ. of Tech. (2013-2020).
- Member of editorial board of Iranian Journal of Physics Research (2010-present).
- Editor of Iranian Journal of Physics Research (2002-present). (the journal is published jointly by the Physics Society of Iran and Isfahan University of Technology).
- Graduate Program Advisor in Department of Physics, Isfahan Univ. of Tech. (2006-2008).
- Deputy of Student Affairs in Department of Physics, Isfahan Univ. of Tech. (2002-2006).

TEACHING SUBJECTS:

- **Undergraduate Courses:** General Physics, Modern Physics, Analytical Mechanics 1 and 2, Mathematical Physics, Electromagnetism, Nuclear Physics 1 and 2, Nuclear Reactor Physics, Advanced Lab. Physics.

- **Graduate Courses:** Classical Mechanics, Special Topics in Nuclear Physics, Advanced Nuclear Physics 1 and 2, Nuclear Fusion.

RESEARCH AREA:

The Main Research Topics:

- Deeply bound states of K-N systems.
- Boron Neutron Capture Therapy (BNCT).
- Proton Therapy.
- Particle accelerators.
- Interactions of Nuclear Radiations with Matter.

• Radiation Protection.
• Simulation of the Cascade Dynamics of Exotic Atoms.
• Calculation of the cross sections of cascade processes for kaonic atoms.
• Spin Polarization effects on ICF and μCF.
• Monte-Carlo Simulation of μCF Cycle.
• Cascade Processes of Muonic and Exotic atoms.
• Experiment and Simulation of the Sonoluminescence(SBSL).
• Inertial Confinement Fusion (ICF).

SCIENTIFIC COLLABORATIONS:

• Permanent member of the Physics Society of Iran (PSI) (1995-present).

• SIDDHARTA International Collaboration (Silicon Drift Detector for Hadronic Atom Research by Timing Application) INFN, LNF, Frascati, Italy (2006-2007).

• Sabbatical leave in Western Michigan University, USA (2012).

• Member of scientific committee of the 2nd Iranian Particle Accelerator Conference, IPM, Tehran, Iran (2015).

• Chair of the 3nd Iranian Particle Accelerator Conference, Isfahan University of Technology, Isfahan, Iran (2017).

• Sabbatical leave in INFN, LNF, Italy (Summer 2018).

• Member of scientific committee of the Annual Physics Conference of Iran,(PSI), in several years at:
Boalisina University, Hamedan, September (2010);
Isfahan University of Technology, Isfahan, August (2009);
Kashan University, Kashan, August (2008);
Yasouj University, Yasouj, August (2007);
Shahrood University of Technology, Shahrood, August (2006);
Tehran, August (2004);
Tabriz University, Tabriz, August (2003);
Zanjan University, Zanjan, August (2002).

LIST OF PUBLICATIONS:

Published Papers in Journals:

1. *The Equilibrium Configuration of Rotating Neutron Stars*, R. Riahi and S. Z. Kalantari, Iranian Journal of Physics Research (2022).

2. *Vacuum system design for the storage ring of Iranian Light Source Facility*, H. Karimi, S.Z. Kalantari, J. Rahighi, Nuclear Inst. and Methods in Physics Research, A **953** (2020) 163202.

3. *Properties of rotating neutron star in density-dependent relativistic mean-field models,* R. Riahi and S. Z. Kalantari, International Journal of Modern Physics D, **30**, 1 (2021) 215001.

4. *Structure of the* $\Lambda(1405)$ *resonance and the* $\gamma+p \rightarrow K^{+} + (\pi\sum)^{0}$ *reaction,* S. Marri , M. N. Nasrabadi and S.Z. Kalantari, *Physical Review C,* **103**, (2021) 055204.

5. *Structure, formation and decay of* $\bar{K}NN$ *system by Faddeev-AGS calculations*, S. Marri, S. Z. Kalantari and J. Esmaili, Chinese Physics C, **43** (2019) 064101.

6. *Universal relations for the Keplerian sequence of rotating neutron stars*, R. Riahi , S. Z. Kalantari and J. A. Rueda, Phys. Rev. D, **99** (2019) 043004.

7. *Investigation of kaon-deuteron interaction and the structure of* $\Lambda(1405)$ *resonance using Faddeev method*, S. Marri, S. Z. Kalantari and J. Esmaili, Iranian Journal of Physics Research, **18** (2019) 539-549.

8. *Investigation of* $\bar{K}\bar{K}N$ *coupled channel system by Faddeev method*, S. Marri, S. Z. Kalantari and J. Esmaili, Iranian Journal of Physics Research, **18** (2018) 291-299.

9. *Polarization of a probe laser beam due to nonlinear QED effects*, S. Shakeri, S.Z. Kalantari, She-Sheng Xue, PHYSICAL REVIEW A, **95** (2017) 012108-1

10. *Deeply quasi-bound state in single- and double- bar K nuclear clusters K*, Sajjad Marri, S.Z. Kalantari. J. Esmaeili, EUROPEAN PHYSICAL JOURNAL A, **52** (2016) 1.

11. *Coupled - channels Faddeev AGS calculation of K-ppn and K-ppp quasi - bound states,* S. Marri and S.Z. Kalantari, Eur. Phys. J. A **52** (2016) 282.

12. *Investigation of Isfahan Miniature Neutron Source Reactor (MNSR) for Boron Neutron Capture Therapy by MCNP Simulation*, Iranian J. of Phys. Research, H. Tavakoli, S.Z. Kalantari and M. Nami Nazari, **4**, 14 (2015) 327.

13. *Investigation of the Source of t Atoms and Muon Catalyzed Fusion in the Multilayer Solids of Hydrogen Isotopes*, J. of Nucl. Sci. and Tech., N. Razavi and S. Kalantari, **68** (2014) 64.

14. *Calculation of neutron flux for the intense neutron source (CF-INS)in optimum conditions*, M. Chashti and S.Z. Kalantari, Journal of Nuclear Sciences, **1**, 2 (2014) 38.

15. *Theoretical analysis of Λ (1405)--> $\sum\pi^0$ mass spectra produced in p+p--> p+ Λ (1405)+K^+ reactions*, M. Hassanvand, S.Z. Kalantari,Y. Akaishi, and T. Yamazaki, Phys. Rev. C 87 (2013) 055202.

16. *Capture of K− by the 4He atom and the internal Auger effect in the Kαe kaonic atom,* S.Z. Kalantari, Sh. Sanayehajari, and M. Dayyanikelisani, Phys. Rev. C **86** (2012) 024603.

17. I*nvestigation of the Λ (1405) production in p + p --> p + K+ + Λ (1405) reaction,* M. Hassanvand, S.Z. Kalantari,Y. Akaishi, and T. Yamazaki, Iranian Journal of Physics Research **12**, 4(2012)83.

18. *The investigation of KN − π∑ interaction effects on K−pp system by Faddeev methods,* J. Esmaili, S.Z. Kalantari, Sh. Maeda, Y. Akaishi, T. Yamazaki, Iranian Journal of Physics Research **12**, 2(2012)18.

19. *Calculation of Cascade Processes rates and Simulation of the Transitions in Kaonic ^{4}He atom,* S.Z. Kalantari, Sh. Sanaye and M. Dayyani, Hyperfine Interact., **209** (2012) 145.

20. *Investigation of Kp and Kd atom formations and their collisional processes with hydrogen and deuterium targets by Classical-Trajectory Monte Carlo method*, M. Raeisi G. and S.Z. Kalantari, Phys. Rev. A **82** (2010) 042501.

21. *Atomic cascade of K−p and K−d atoms and Doppler broadening contribution on x-ray widths,* S.Z. Kalantari and M. Raeisi G., Phys. Rev. C **81** (2010) 014608.

22. *Density dependence of the deexcitation dynamics of kaonic hydrogen and deuterium atoms formed in kaon transmission through gaseous hydrogen and deuterium targets,* M. Raeisi G. and S.Z. Kalantari, Phys. Rev. A **79** (2009) 012510.

23. *Study of Moving Single Bubble Sonoluminescence,* M. Aliasgarian and S.Z. Kalantari, Iranian Journal of Physics Research **8**, No.4(2009)227.

24. *Study of the Dynamics of Cascade Processes of Muonic Atoms by Multi Group Method,* S. Z. Kalantari and H. Pirahmadian, Iranian Journal of Physics Research **6**, No.2(2006)95.

25. *Determination of Time Spectra of Neutrons and Energy Spectra of Muonic Atoms in μCF by Monte-Carlo Method,* S.Z. Kalantari and J. Esmaili, Iranian Journal of Physics Research **5**, No.2(2005)49.

26. *Investigation of the μCF in the Spin Polarized Condition,* S.Z. Kalantari, Int. J. of Mod. Phys. E **12**, 3(2003)431.

27. *Effects of the Side-Path Model on the Muon Total Sticking Coefficient and Cycling Rate in D/T μCF,* S.Z. Kalantari and M. Sohani, Int. J. of Mod. Phys. E **11**, 6(2002)539-554.

28. *Investigation of Epithermal Molecular Formation and Hyperfine Interaction Effects on Kinetics of μCF,* S.Z. Kalantari and V. Tahani, Hyperfine Interactions, **142**(2002)627-642.

29. *Study of the Total Sticking Coefficient and Determination of Optimum Conditions for D/T μCF With Meta-Stable dtμ_ Molecule,* S.Z. Kalantari and M.Sohani, Iranian J. of Phys. Research **2**, 4(2001)207.

30. *Efficiency of the μCF in Triple H/D/T Mixtures* , S.Z. Kalantari, Hyperfine Interactions **128**, 4(2000)481-493.

31. *Spin Polarization Effects on D-T and D-3 He in ICF,* S.Z. Kalantari and M.R. Eskandari, Nucl. Sci. J. **33**, 3(1996)163.

32. Gain *Calculation for the D/T in SCAT and CAT Modes With Bremsstrahlung Loss and Reheat Branches,* M.R. Eskandari and S.Z. Kalantari, Iranian J. of Sci. and Tech. **19**, 3(1995)173.

Presentations at Conferences:

1. *Kaonic atoms and Nuclei,*
   S,Z. Kalantari, Annual Nuclear Physics Conference of Iran (ANP), Nuclear Physics Society of Iran, Mashhad, Iran, Ferdowsi University, February (2021).

2. *Investigation of the beam loading effects in a pillbox cavity,*
   R. Kavusi, S.Z. Kalantari, S. Sanayehajarii and F. Ghasemi, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan, Isfahan University of Technology (2021).

3. *Determining the radius-mass range of a rotating neutron star using the universal relation of Keplerian frequency,*
   R. Riahi and S. Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan, Isfahan University of Technology (2021).

4. *Investigation of the πΣ mass spectra in the $\gamma+p \rightarrow K^{+} + (\pi\sum)^{0}$ reaction by AGS Faddeev method,* S. Marri , M. N. Nasrabadi and S.Z. Kalantari, Nuclear Structure and Reactions conference, University of Golestan, Iran (2021).

5. *Calculation of the optimum energy and therapeutic gain in proton therapy of brain tumor using Snyder phantom in MCNP code,*
   S. Rezaei and S.Z. Kalantari, Annual Nuclear Physics Conference of Iran (ANP), Nuclear Physics Society of Iran, Bushehr, Iran, February (2019) 1.

6. *The stability of rotating neutron stars,*
   R. Riahi and S. Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), International University Imam Khomeini, Ghazvin, Iran, (2018).

7. *Investigation of kaon-deuteron interaction at* $p_{lab}^{\bar{K}}$ *=1GeV/c by Faddeev method,*
   S. Marri, S. Z. Kalantari and J. Esmaili, Annual Nuclear Physics Conference of Iran (ANP), Nuclear Physics Society of Iran, Tehran, Iran, February (2017) 866.

8. *Investigation of* $\bar{K}\bar{K}NN$ *four-body using Faddeev AGS method,*
   S. Marri, S. Z. Kalantari and J. Esmaili, Annual Nuclear Physics Conference of Iran (ANP), Nuclear Physics Society of Iran, Tehran, Iran, February (2017) 870.

9. *Designing Of Electromagnet For a Small Cyclotron Accelerator,*
   M. Tavakoli and S.Z. Kalantari, Third Iranian Particle Accelerator Conference, Isfahan University of Technology, Isfahan, Iran. Dec. (2017) 158.

10. *Investigation Of The Optimume Conditions For PIG Ion Source,*
    M. Tavakoli and S.Z. Kalantari, Third Iranian Particle Accelerator Conference, Isfahan University of Technology, Isfahan, Iran. Dec. (2017) 154.

11. *Effect of the different equations of state on maximum mass of rotating neutron stars,*
    R. Riahi, S. Z. Kalantari, J. A. Rueda and R. Ruffini, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Yazd University, Yazd, Iran (2017).

12. *Exploring the nonlinear QED effects with a probe laser beam,*
    S. Shakeri, S.Z. Kalantari, and She-Sheng Xue, 7th Conference of Particle Physic and Fields, Damghan University, Iran (2017) 58.

13. *Investigation of* $\bar{K}\bar{K}NN$ *four-body using Faddeev AGS method,*
    S. Marri, S. Z. Kalantari and J. Esmaili, Annual Nuclear Physics Conference of Iran, Nuclear Physics Society of Iran, Tehran, Iran, February (2017) 870.

14. *Investigation of the ground states of $\bar{K}NN$ and $\bar{K}NNN$ systems by the Faddeev method,*
S. Marri, S. Z. Kalantari and J. Esmaili, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Ferdowsi University, Mashhad, Iran, August (2015) 359.

15. *Investigation of the atomic and nuclear states of K^{-} ^{118}Sn,*
M. Jafari Shahivand and S.Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Ferdowsi University, Mashhad, Iran, August (2015) 2278.

16. *Neutron beam design based on ^{252}Cf neutron source for BNCT,*
Z. Salehi, S.Z. Kalantari and Y Kasesaz, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Sistan & Balochestan University, Iran, September (2014) 1691.

17. *Calculation of the deeply bound nuclear states of K^{-} ^{12}C and K^{-} ^{3}He,*
M. Jafari Shahivand and S.Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Sistan & Balochestan University, Iran, September (2014) 1555.

18. *The rule of $\Lambda(1405)$ resonance in determination of $K^{-}pp$ energy,*
S. Marri, S. Z. Kalantari and J. Esmaili, 21st IPM Physics Spring Conference, IPM, Tehran, Iran, May (2013).

19. *Stability of Particle Motion in the IUT's 7 inches Cyclotron,*
A. Arefian, S.Z. Kalantari, and S. Mahmoudpour Ghamsar, 1th Iranian Particle Accelerator Conference, Amirkabir University of Technology, Tehran, Iran. Nov. (2012).

20. *Calculation of the cross section of Λ (1405) formation in pp collision and its decay rate to $\sum\pi$ channel and fitting to HADES data,*
M. Hassanvand, S.Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Yasd University ,Yazd, Iran, September (2012)355.

21. *Calculation of Cascade Processes rates and Simulation of the Transitions in Kaonic 4He atom,*
S.Z. Kalantari, Sh. Sanaye and M Dayyani, International Conference on Exotic Atoms and Related Topics - EXA2011, Vienna, September(2011).

22. *Study of the formation possibility of a deeply-bound K−K−pp state in the pp --- K+K+^^ reaction,*
    M. Hassanvand, Y. Akaishi, T. Yamazaki and S.Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Urmia University ,Urmia, Iran, 5-8 September (2011).

23. *Investigation of the resonant formation of ^(1405) by stopped-K− absorption in d,* J. Esmaili, S.Z. Kalantari, Y. Akaishi and T. Yamazaki, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Urmia University ,Urmia, Iran, September (2011).

24. *Neutron Flux Simulation of The Intense Neutron Generator (CF-INS),*
    M. Chashti, S.Z. Kalantari,Annual Physics Conference of Iran, Physics Society of Iran(PSI), Urmia University ,Urmia, Iran, 5-8 September (2011) 1075.

25. *Design a beam shaping assembly (BSA) for Isfahan MNSR reactor for using in BNCT,*
    H. Tavakoli, S.Z. Kalantari, Annual Physics Conference of Iran, Physics Society of Iran(PSI), Urmia University ,Urmia, Iran, 5-8 September (2011) 1051.

26. *Determination of mass and width of ^(1405) by ∑π invariant-mass spectra from K− absorption ...,*
    J. Esmaili, S.Z. Kalantari, Y. Akaishi and T. Yamazaki,, Proceeding of the ANP Conference of Iran, Isfahan, Iran, 23-24 February(2011) 464.

27. *Few body calculations of deeply bound states of Kaonic Nuclei by Faddeev method,* J. Esmaili,
    S.Z. Kalantari, Y. Akaishi and T. Yamazaki,, Proceeding of the ANP Conference of Iran, Isfahan, Iran, 23-24 February(2011) 1260.

28. *Simulation of Cascade Transitions and Calculation of X-ray Yields of Kaonic Helium Atoms,*
    S.Z. Kalantari, Sh. SanayeM and Dayyani, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Boalisina University ,Hamedan, Iran, 12-14 September (2010).

29. *Quantum Mechanical Calculation of Cascade Transition Rates of K4He Atoms, S.Z. Kalantari,*
    M Dayyani and Sh. Sanaye, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Boalisina University ,Hamedan, Iran, 12-14 September (2010).

30. *Analysis of cascade dynamics and x-ray yields for K−p and K−d atoms by Monte-Carlo method,*
S.Z. Kalantari, International Workshop on Hadronic Atoms an Kaonic Nuclei solved puzzles, open problems and future challenges in theory and experiment, ECT_, Trento, Italy, October 12-16 (2009).

31. *Nuclear Absorption and Stark mixing effects on the X-ray Yields of Kaonic Hydrogen and Deuterium Atoms,*
M. Raeisi G. and S.Z. Kalantari, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan University of Technology,Isfahan, Iran, 15-18 August (2009)649.

32. *Calculation of Collisional Processes Cross Sections of Kaonic Hydrogen Atom with Hydrogen atom and molecule by CTMC Model,*
M. Raeisi G. and S.Z. Kalantari, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan University of Technology,Isfahan, Iran, 15-18 August (2009)86.

33. *Simulation of Sonoluminescence by Water Hammer in Loe Frequencies,*
S. Mahmoodpour and S.Z. Kalantari, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan University of Technology,Isfahan, Iran, 15-18 August (2009)548.

34. *Sonoluminescence Experiment in Low Frequencies by water Hammer,*
S. Mahmoodpour and S.Z. Kalantari, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Isfahan University of Technology,Isfahan, Iran, 15-18 August (2009)560.

35. *Study of the Motion and the Temperature of Bubble in Moving Single Bubble Sonoluminescence,*
S.Z. Kalantari and M Aliasgarian, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Kashan University, Kashan, Iran, 25-29 August (2008)45.

36. *Calculation of Muonic atom cascade dynamics in D-T Mixtures,*
S.Z. Kalantari and M. Raeisi, International Conference on μCF and Related Topics (MCF-07), JINR, Dubna, Russia, June 18-21 (2007).

37. *Study of the strong interaction by calculation of the K series yields in cascade processes of kaonic hydrogen atoms,*
S.Z. Kalantari and M. Raeisi, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Yasuj University,Yasuj, Iran, 27-30 August (2007)103.

38. Study of the liquid temperature effects on single bubble sonoluminescence by a hydrochemical model,
S.Z. Kalantari, M. Hasanvand, A. Moshaii, and R. Rezaei, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Yasuj University,Yasuj, Iran, 27-30 August (2007)751.

39. *Calculation of relative x-ray yields in cascade processes of muonic deuterium atoms by Monte-Calro method*,
S.Z. Kalantari and M. Raeisi, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Shahrood University,Shahrood, Iran, 28-31 August (2006)242.

40. *Dynamics of cascade processes of muonic atoms*,
S.Z. Kalantari and H. Pirahmadian, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Shahrood University,Shahrood, Iran, 28-31 August (2006)238.

41. *Hydrochemical simulation of sonoluminescence from Noble gas bubbles,*
R. Rezaei-Nasirabad, M. Silatani, K. Imani, A. Moshaii, S.Z. Kalantari, R. Sadighi-Bonabi, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Shahrood University,Shahrood, Iran, 28-31 August (2006)465.

42. *Simulation of cascade processes of muonic atoms in D/T mixtures by Monte-Carlo method,*
S.Z. Kalantari and M. Raeisi, Proceeding of the ANP Conference of Iran, Ferdowsi University, Mashhad, Iran, 22-23 February(2005).

43. *Determination of time spectra of neutrons and energy spectra of muonic atoms in μCF by Monte-Carlo method,*
S.Z. Kalantari and J. Esmaili, Proceeding of the ANP Conference of Iran, Ferdowsi University, Mashhad, Iran, February(2005).

44. *Ultra-High intensity muon beam effects on μCF cycle*,
S.Z. Kalantari and H. Rabbani, Proceeding of the Annual Physics Conference of Iran, Physics Society of Iran(PSI), Tehran, Iran (2004)115.

45. *Monte-Carlo simulation of the μCF,*
S.Z. Kalantari, Proceeding of the ANP Conference of Iran, Arak, Iran(2004)190.

46. *Calculation of Spin-Flip rate of tμ1 atoms and investigation of spin polarization effects on μCF cycle*,
S.Z. Kalantari, Proc. of the Annual Phys. Conf. of Iran, Zanjan Univ., Iran, Physics Society of Iran(PSI) (2002)21.

47. *Spin polarization effects on kinetics of μCF,*
S.Z. Kalantari, Proceeding of the ANP Conference of Iran, Shahreza, Iran (2002)108.

48. *Thermalization of Muonic Atoms and Calculation of _ Parameter in μCF,*
S.Z. Kalantari and V. Tahani, Proc. of the Annual Phys. Conf. of Iran, Physics Society of Iran(PSI), Teach. Training Univ. of Sabzevar, Iran (2001)104.

49. *Epithermal effects and hyperfine interactions in H/D/T μCF,*
S.Z. Kalantari and V. Tahani, Proc. of the Annual Phys. Conf. of Iran, Physics Society of Iran(PSI), Teach. Training Univ. of Sabzevar, Iran (2001)12.

50. *Improvement of the essential parameters in μCF by considering the metastable molecule dtμ*,*
S.Z. Kalantari and M. Sohani, Proc. of the Annual Phys. Conf. of Iran, Physics Society of Iran(PSI), Shahrood Univ., Iran (2000)26.

51. *Efficiency of the μCF in triple H/D/T mixtures,*
S.Z. Kalantari, Proc. of the Annual Phys. Conf. of Iran, Physics Society of Iran(PSI), Mazandaran Univ., Iran (1999)87.

52. *Nuclear Fusion,* S.Z. Kalantari, 7^{th} Phys. Teach. Conf. of Iran, Center of Teach. Training of Yazd (1999).

53. *Tritium concentration effects on μCF cycle efficiency,*
S.Z. Kalantari, Abs. of the Iranian Annual Phys. Conf., Physics Society of Iran(PSI), Ferdowsi Univ. of Mashhad, Iran (1996)350.

54. *Spin polarization effects on fusion dynamics*,
S.Z. Kalantari and M.R. Eskandari, Abs. of the Iranian Annual Phys. Conf., Physics Society of Iran(PSI), Urmia Univ., Iran (1995)191.

55. *Neutron production and breeding of ^{239}Pu and ^3t in D-T and D-^3He ICF,* S.Z. Kalantari, Gathering of Phys. Stu., Ferdowsi Univ. of Mashhad, Iran (1995)4.

56. *Gain calculation for the D-T in SCAT and CAT modes with Bremsstrahlung loss and Reheat branches*, M.R. Eskandari and S.Z. Kalantari, Abs. of Seventh Inter. Conf. on Emerging Nuclear Energy Systems, Makuhari, Chiba, Japan, (1993)123.

57. *Kinetics of D-T fusion by ICF in SCAT and CAT modes,* M.R. Eskandari and S.Z. Kalantari, Abs. of the Iranian Annual Phys. Conf., Physics Society of Iran(PSI), Razi Univ., Kermanshah, Iran (1993)85.

58. *Safety studies on Pool-Type research reactors,* M.R. Eskandari, A. Ghasemi and S.Z. Kalantari, Proc. of 3^{th} Int. Conf. on Nuclear Power Plants Safety ..., Obninsk, Russia (1993)131.

59. *Evaluation of depletion function of any index of $k\geq 3$ for isotope transmutation,* M.R. Eskandari and S.Z. Kalantari, Proc. of Inter. Congress on Computational Method in Engineering, Vol.1, Shiraz Univ., Iran (1993)177.

60. *Generalized Hertz Potentials,*
M.M. Golshan and S.Z. Kalantari, Abs. of the Iranian Annual Phys. Conf., Physics Society of Iran(PSI), Alzahra Univ., Tehran, Iran (1992)12.

61. *Derivation of the Maxwell equations in the presence of magnetic Monopoles by spatial relativity*,
M.M. Golshan and S.Z. Kalantari, Abs. of the Iranian Annual Phys. Conf., Physics Society of Iran(PSI), Isfahan Univ., Isfahan, Iran (1991)50.

AWARDS:

The Physical Society of Iran Award, for the Best Physics Research in Iran, September 1995.