Curriculum Vitae

Personal:

Family Name: Sheikh-Jabbari,

First Name: Mohammad Mehdi (Shahin)

Nationality: Iran

Birth day: 04/Feb/1974

Marital Status: Married, No children.

Contact Information:

School of Physics,

Inst. for research in fundamental sciences (IPM)

P.O.Box 19395-5531, Tehran, Iran.

`E-mail`: jabbari@theory.ipm.ac.ir & shahin.s.jabbari@gmail.com.

Phone : 0098-21-22280-692 (W)

FaX: 0098-21-22280-415.

Professional:

Present Position:

Professor of Physics at IPM, Tehran, January 2006-Present.

Past Positions:

Sabbatical leave at ICTP, Trieste, From June 2019-June 2020 .

Associate Prof. of physics, IPM, Tehran, January 2005–January 2006.

Head of School of Physics at IPM, Aug. 2007-Oct. 2008 & Sept. 2014–Sept. 2018.

Head of Physics Branch of Iranian Academy of Sciences, Dec. 2013–April 2019.

Previous Postdocs and Education:

Under-graduate: Sharif University of Technology, Tehran, Iran 1991-1995.

Graduate: Sharif University of Technology, Tehran, Iran, 1995-(Feb.) 1998.

PhD Adviser: Prof. H. Arfaei.

PhD Thesis: Study of D-brane Dynamics in String Theories.

First Postdoc.: March 1998-Sep. 1999, IPM, Tehran, Iran.

Second Postdoc.: Sep. 1999- Sep 2001: The Abdus-Salam ICTP, Trieste, Italy.

Third Postdoc.: Oct. 2001- Oct 2004: ITP, Stanford University; c/o Prof. L. Susskind.

Honors, Grants and Awards

- **INSF Researcher Chair** in black hole physics, Five-year award, Dec. 2025.

- **Distinguished researcher of the year in physics**, the Iranian Annual Research Festival in Azar 1404 (Dec. 2025).

- *Visiting Research Fellow*, from BIMSA, China, a five year award, April 2025-April 2030.

- *International Visiting Professor Chair*, from ULB, Brussels, August-September 2023.

- ***Permanent member of Iranian Academy of Sciences***, March 2022.

- *Senior Associate of the Abdus Salam ICTP*, a five year award, 2022-2027.

- ***Editor of Review section in European Journal of Physics C***, since August. 2021.

- Honorable Mention in the 2020 Awards for Essays on Gravitation, for more info see here.

- Selecting referee for COMSTECH Award in physics (2019).

- Honorable Mention in the 2018 Awards for Essays on Gravitation, for more info see here.

- PI of two years IMPLUSE, Iran-Austria research grant on "Quantum Aspects of Black Holes", May 2018–May 2020.

- Coordinator of ICTP network scheme ICTP-NT-04, since Jan. 2017. Also, I was Iran node coordinator of ICTP network NET-68 in 2012-2017 period.

- Member of ***Weyl Prize Selection Committee***, May 2017– January 2022.

- **INSF Junior Research Chair** on black physics, Jan. 2017-2022; grant no. 950124.

- Honorable Mention in the 2016 Awards for Essays on Gravitation, for more info see here.

- ***Chosen among 50 distinguished alumni of Sharif University***, *the* 50^{th} *anniversary of Sharif University of Technology, Tehran, May 2016 (Ordibehesht 1395).*

- ***SarAmadan research grant***, *Iran Vice Presidency in Science and Technology, every year since 2015;* 3^{rd} *place in the country in 2021.*

- ***Member of International Advisory Committee*** *of National Institute for Theoretical Physics (NITheP), South Africa, 2015-2021.*

- *Simons Associate of the Abdus Salam ICTP Award*, a six year award, 2015-2021.

• *International visiting professor*, Keyung Hee University Korea, Spring 2014.

• ***Head of physics branch of Iranian Academy of science***, Dec. 2013-April 2019 and again since April 2021.

• *Senior scientist special grant of Allame Tabatabaie Award*, Feb. 2012, from Boniad-e Melli Nokhbegan (National Elite Institute) of Iran.

• ***Member of Editorial Board of European Journal of Physics C***, since Oct. 2011.

• Honorable Mention in the 2011 Awards for Essays on Gravitation, for more info see here.

• *Associate member of Iranian Academy of science*, June 2009- February 2022.

• *Influential Scientist of Iran* (chosen in the 7th "chehre-hai-e mandegar" ceremony) in Nov. 2008.

• ***Hermann Weyl Prize in Theoretical Physics 2008.***

• Chosen as *Distinguished Professor of the country*, Iran, 2008.

• Awarded *junior scientist special grant*, 2008, from Boniad-e Melli Nokhbegan (National Elite Institute) of Iran.

• ***COMSTECH Award 2007 in Physics***.

• ***ICTP Prize 2007***, for more info see here.

• *TWAS Young Scientist Prize in Developing Countries in Physics, 2006*.

• 2nd place in the Khwarizmi International Award, Bahman 1384 (Feb. 2006). For the project on the "*A Model for Quantum Structure of Space-Time*".

• Chosen among distinguished researchers as well as the author with highly cited papers, in the "Iranian Annual Research Festival" in Azar 1384 (Dec. 2005).

• Awarded as authors of top-cited papers of the year in the festival of scientific research by the Science ministry in Iran in Azar 1382 (Dec. 2003), (together with M. Alishahiha).

• Khwarizmi Young scientist award in Azar 1380 (Dec. 2001) for my top-cited papers on *noncommutative geometry*.

• Awarded in Sharif University as the 1st grade in my PhD class (Graduates of 1998).

• 1st grade in the global national entrance exam of Masters degree in Physics, 1373 (1994).

• Awarded as the 1st grade in my BS class in Sharif University, 1373 (1994).

• 3rd place in the global national University entrance exams in Basic Sciences and Engineering, 1369 (1990).

Organizing Seminars and Workshops

1) 4th IPM String School, ISS2005, January 2005, Qeshm Island, Iran.

2) International School/Workshop on Noncommutative Geometry, NCG2005, September 2005, IPM, Tehran.

3) 11th Annual Physics Conference of Iran, August 2005, Khorram-Abad, Iran.

4) 5th IPM String School, ISS2006, April 2006, IPM, Tehran.

5) 6th IPM String School, ISS2007, April 2007, IPM, Tehran.

6) 7th IPM String School, ISS2008, April 2008, IUT, Isfahan.

7) IPM International School and Workshop on Electroweak Physics, May 2008, IPM.

8) 8th IPM String School, ISS2009, April 2009, IPM, Tehran.

9) IPM School on Early Universe Cosmology, December 2009, IPM, Tehran.

10) First Workshop on "Priorities of Research and Education of Physics in Iran," February 2010, Iranian Academy of Sciences, Tehran.

11) One Day Workshop on "Recent Developments in String Theory," December 2010, IPM, Tehran.

12) One day Workshop on "Physics & Interdisciplinaries," June 2011, Iranian Academy of Sciences, Tehran.

13) One day Workshop on "Public Understanding of Physics, necessity and strategies," December 2011, Iranian Academy of Sciences, Tehran.

14) One day Workshop on "Forum on Research Institutes and Physical Sciences Societies of Iran," March 2012, Iranian Academy of Sciences, Tehran.

15) One day Workshop on "Aspects of Integrable Systems and AdS/CFT," November 2012, IPM, Tehran. *This workshop was within the ICTP Network Scheme.*

16) One day casual discussion meeting on "Noncommutative Geometry and Physics", December 2012, IPM, Tehran.

17) Workshop on "Quantum Aspects of black holes," January 2013, Seoul, Korea.

18) "Two day workshop on NCG and physics," May 2013, IPM, Tehran.

19) Workshop on "Quantum Aspects of Black Holes," September 2013, Yerevan, Armenia.

20) One day Workshop on "Forum on Educational and Research Laboratories of Physics in Iran," February 2014, Iranian Academy of Sciences, Tehran.

21) Workshop on "Recent Developments in Supergravity," June 2014, IMBM, Bogazici University, Istanbul, Turkey.

22) International advisory committee of "IX International Symposium on Quantum Theory and Symmetries (QTS-9)," July 2015, Yerevan, Armenia.

23) One day Workshop on "Challenges of pre-University Physics and Mathematics Education in Iran," 12 November 2015, Iranian Academy of Sciences, Tehran.

24) One day Workshop on "Challenges of University Physics and Mathematics Education in Iran," 26 November 2015, Iranian Academy of Sciences, Tehran.

25) IPM School on "Higher Spin Theories," 15-19 February 2016, School of Physics, IPM.

26) Workshop on "Topics in three dimensional Gravity," 21-24 March 2016, The Abdus Salam ICTP, Trieste, Italy.

27) Workshop on "Recent Trends in String Theory," May 2016, IPM, Tehran.

28) 2nd Workshop on "Quantum Aspects of Black Holes," August 2016, Yerevan, Armenia.

29) 4^{th} Theoretical Physics School and Workshop, September 2016, Tabriz, Iran.

30) One day Workshop on "Challenges of post-graduate education in Physics and Mathematics in Iran," 12 January 2017, Iranian Academy of Sciences, Tehran.

31) Joburg Workshop on "Black holes and Entanglement," 27-31March 2017, Mandelstam Inst. Wits Uni., Johannesburg, South Africa. For more info see here.

32) Workshop on "Recent Trends in String Theory and Related Topics," 8-11 May 2017, IPM, Tehran.

33) One day Workshop on "Integrated Sciences," 21 December 2017, Iranian Academy of Sciences, Tehran.

34) Workshop on "Recent Trends in String Theory and Related Topics," 8-11 May 2018, IPM, Tehran.

35) Scientific advisory board of " 2018 JOINT FAR/ANSEF-ICTP and RDP-VW summer school in theoretical physics," July 2018, Yerevan, Armenia.

36) Scientific committee of "Two day workshop on particle physics", 12-13 Dec. 2018, Shahid Beheshti U., Tehran.

37) Scientific organizing committee of "National Gravity and Cosmology Conference," Feb. 2019, IPM, Tehran.

38) Scientific advisory board of "Recent trends in string theory and related topics," 21-24 April 2019, IPM, Tehran.

39) Cosmology and Gravity Session organizer of "XIth International Symposium in Quantum Theory and Symmetries (QTS-XI)," 1-5 July 2019, Montreal, Canada.

40) Scientific advisory board of International Workshop `Supersymmetries and Quantum Symmetries` (SQS'19) 26 – 31 August 2019. Yerevan, Armenia.

41) Organizing committee of `Recent Developments in Supergravity Theories and Related Topics` (in memory of Rahmi Guven) 6-7 December 2019, Bogazici Uni, Istanbul.

42) Organizing committee of 5th `Iranian Math-Phys. conference` 28-30 December 2020, Qom Tech. Uni, Iran.

43) Organizing committee of three day workshop `A discussion on the cosmological principle` 25-28 October 2021, APCTP, Korea, see here.

44) Organizing committee of IRCHEP 1400, `International Conference of High Energy Physics,` 8-10 Nov. 2021, IPM, Tehran, Iran, see here.

45) Organizing committee of Webinar on `Brain Studies in Iran, prospects and challenges,` 27 Jan. 2022, Iranian Academy of Sciences, See here.

46) Organizing committee of 6th `Iranian Math-Phys. conference` Feb. 2022, Qom Tech. Uni, Iran.

47) Organizing committee of `Physics @ Boundaries` online workshop, 14-18 March 2022, hosted @ BIMSA, China; See here.

48) Organizing committee of `7th Iranian Math-Physics conference` hybrid conference, 3,4 June 2023, hosted @ Qom Tech. Uni; See here.

49) Organizing committee of `Focus Week: Cosmological tensions`, IFPU (& online), June 12 – 23, 2023, IFPU/ICTP, Trieste, Italy; See here.

50) Organizing committee and lectures in `IPM School on High Energy Physics` 15-17 Nov. 2023, IPM, Tehran, Iran, see here.

51) Organizing committee of IRCHEP 1402, `International Conference of High Energy Physics`, 20-23 Nov. 2023, IPM, Tehran, Iran, see here.

52) Scientific organizing committee of `Strings 2025, Abu Dhabi`, 6-10 Jan. 2025, NYE, Abu Dhabi, see here.

Science Policy-making Experience

- As a permanent member Iranian Academy of science (since March 2022) which followed associate membership (since 2008) and Head of physics branch of the academy (2015-2019 & 2021–), I have been involved in several science policy making discussions and projects.
- I have led a project and conducted the research on *physics and society, science popularization*. This project was performed under Iranian Academy of Sciences.
- Member of Research Council of Iranian Academy of Sciences, March 2018- June 2019 and since Nov. 2021- March 2023.
- I was a member of scientific council of Iranian National Elite Foundation and was a member of the task force for preparing the document of national policies toward scientific elites, 2010-2012.
- I am the referee to science ministry of Iran for the budget allocation for "physics excellence centers."
- Coordinator of the ICTP network, NT-04 (2015–2024). This is the scientific network, I and three other HEP-TH researchers established in 2012 to prompt scientific collaboration between my group and similar groups in Yerevan-Armenia and Turkey. (I was the coordinator of the Iranian node until May 2015.)
- Member of International Advisory Committee (CAS) of National Institute for Theoretical Physics (NITheP), South Africa, since May 2015; see here.
- Member of "Faculty Hiring Committee" of IPM, Oct. 2016–Oct 2022.
- Member of Basic Science Committee of Boniad Melli Nokhbegan (Iran National Excellency Foundation), since Jan. 2018.
- Member of Basic Science group of INSF (Iranian National Science Foundation), since Oct. 2018.
- Member of "Faculty Promotion Committee" of IPM, March 2019-2023.
- Member of Scientific Committee of INSF (Iranian National Science Foundation), the INSF council, Oct. 2020–Feb. 2025.
- Member of "Basic Science Promotion Committee" of Science Ministry of Iran, since Jan. 2021–Jan. 2022.
- Member of "International collaboration" task force of physics society of Iran, since Jan. 2021– Jan 2023.
- Member of Council of Nokhbegan (Iran National Excellency Foundation), July 2023–July 2024.
- Head of Physics committee of INSF, since July 2023.

- Member of Basic Science group of Ministry of Scince, Research and Technology, since March 2024.
- Member of Basic Science Council of Nokhbegan (Iran National Excellency Foundation), since March 2025.

Book Authorship

In 2022 we have published the graduate textbook

Black Holes

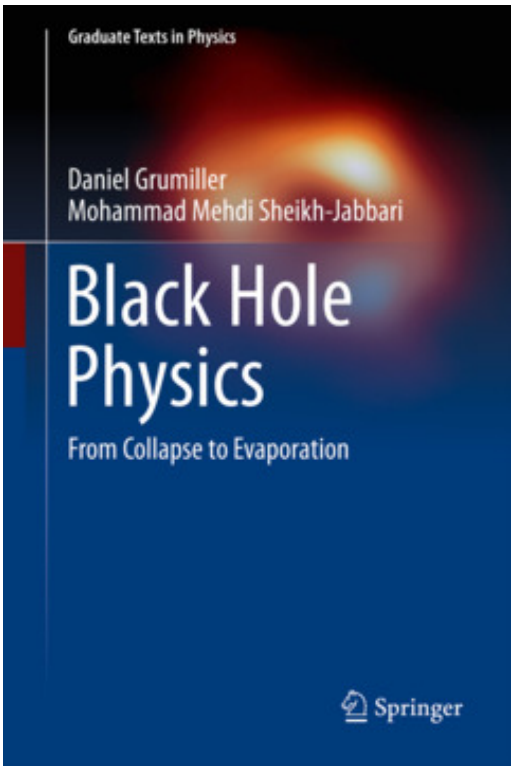
From Collapse to Evaporation

Authors: D. Grumiler & M.M. Sheikh-Jabbari

Publisher: Springer Graduate Textbooks, 9 Nov. 2022.

ISBN-13:978-3031103421, **ISBN-10**:3031103424

See **here**.



Teaching & Education Experience

I have over 30 years experience in teaching various physics courses at undergraduate, Masters and PhD and post PhD levels. I have taught most of several undergraduate courses and many postgraduate courses in HEP area. Expanding on my exiting lecture notes on black hole physics, I have coauthored a book.

Undergraduate & MSc courses I have taught

1. A course on *physics of waves* for physics major freshmen, 1994 Sharif University.
2. A basics physics course on *Thermodynamics and elementary Stat. Mech.* for physics major freshmen, 1995 Sharif University.
3. A two semester undergraduate course on *Classical Mechanics*, 1997 Sharif University.
4. Part two of a two semester course on *Quantum Mechanics*, 1998 Sharif University.
5. A course on *Advanced Electrodynamics* (masters level), 1996 Sharif University.
6. I have taught basic freshman physics, trying a new teaching method in 1994-95. The method I used was to emphasize the concepts and model building aspects of Classical Mechanics and ElectroMagnetism first and then once the concepts are in place build the formulation. I think, if done with a special care, this can be very successful method for training theoretical physicists. I published my lecture notes of these course then in a two volume book (though in Farsi).

PhD/advanced courses I have taught

1. A one year course on *String Theory* for PhD students, 2005 at IPM.
2. A one year course on *Quantum Field Theory* for PhD students, Fall 2010, Spring 2011, at IPM.
3. An *Advanced Gravitation* course for PhD students, Fall 2011 and Fall 2015.
4. *Quantum Field Theory II: Renormalization Group and Non-Abelian Gauge Theories*, Spring 2012, and Spring 2016, IPM.
5. One semester (4 hours per week) course on *Black Hole Physics and AdS/CFT Duality*, Fall 2012, IPM.
6. One semester (2 hours per week) course on *Conformal Field Theory in Various dimensions*, Winter-Spring 2013, IPM. My lecture notes may be found **here**.
7. One semester (2 hours per week) course on *AdS/CFT and its string theory roots*, Fall 2013, IPM. My lecture notes may be found **here**.

8. Twenty hours lectures on CFT in various dimensions, Kyung Hee University, Seoul, Korea, April and May 2014.

9. One semester course on *Black Hole Physics, Classical and Quantum Aspects*, Fall 2014, IPM.

10. One semester (4 hours per week) QFT III course, covering four topics anomalies in QFT, solitons and nonpertubative effects, conformal field theory and supersymmetric field theories, Fall 2016, IPM.

11. A one-semester course on String Theory (4 hours per week), Fall 2017-Winter 2018, IPM.

12. Twenty hours lectures on QFT, Jan.-Feb. 2020, EAIFR, Kigali, Rwanda.

Advising MSc and PhD students:

- Two ICTP students, Ihab F. Riad and Andrei Micu, with their diploma dissertation (it is equivalent to masters degree), the result of which has been published, numbers 20 & 21 in my publication list.

- I was an informal adviser to Darius Sadri who was a graduate student at Stanford University. We published a review article in *Reviews of Modern Physics*, #47 in my publication list. Darius unfortunately passed away on heart attack in April 2015, while he was a researcher at Princeton university.

- Two PhD students of mine during 2005-2008, Mahdi Torabian and Mohammad Ali-Akbari, worked with me on the matrix model formulation for DLCQ of strings on the $AdS_5 \times S^5$ I have proposed, the tiny graviton Matrix model. Mahdi is now a junior faculty at Sharif University and Mohammad an associate professor in Shahid Beheshti Uni, Tehran.

- My other student Azadeh Maleknejad worked on inflation within gauge field theories has graduated in June 2012 and was a postdoc at IPM and then a visitor till May 2016. She is now a postdoc at theory division of CERN. We have written a review article for *Physics Reports*; item #91 in my publication list.

- Kamal Hajian, who was a postdoc at IPM till mid 2018, was my PhD student from Sharif University, finished his PhD in August 2015.

- Ali Seraj, who was my MSc and PhD student, finished his PhD in January 2016 and was a postdoc at IPM till Sept. 2018. He is currently a postdoc at ULB.

- Saeedeh Sadeghian, who was my PhD student from Alzzahra University, finished her PhD in February 2016. She was a postdoc at IPM Sept.2016–Sept.2019 and a postdoc at Wigner Inst. till Oct.2020. She is now a junior faculty in Mazandaran Uni, in Babol.

- Erfan Esmaili is my PhD student from IPM, school of physics. Erfan has worked on various aspects of soft charges and asymptotic symmetries of form field theories in various dimensions. He defended his PhD in Sept. 2020. He is now a postdoc associate under my SarAmadan grant at IPM.

- Hamid R. Safari is my PhD student from IPM, school of physics. Hamid has worked on various algebraic aspects of asymptotic symmetry groups, their stabilization and physical implications. He defended his PhD in Sept. 2020. He is now a postdoc associate under my SarAmadan grant at IPM.

- Vahid Taghiloo is my PhD student from IASBS, Zanjan. Vahid has worked on physics @ null boundaries, symmetry analysis, surface charges and their algebra. He defended his PhD thesis in Sept. 2022. He is now a postdoc in my research group at IPM.

- I have co-advised several MSc and PhD level students,

  - A.A. Abolhassani (the main adviser was Prof. H. Firouzjahi). He is a faculty member in physics dept. of Sharif Uni.
  - I have also been co-adviser to two philosophy of physics students A. Yaghmaei and S. Masoumi. A. Yaghmaei has defended his thesis in March 2013 and Masoumi in Dec. 2014. They are now both assistant profs in Sh. Beheshti Uni.
  - Mohanna Shams-Nejati from IASBS, who graduated Nov. 2024 and will join as a postdoc to IPM phys. dept.
  - Mahdi Golshani from IASBS, who started his PhD thesis in 2024.

- I have been adviser to four MSc students of Sharif University:

  - Ali Seraj, August 2011, who worked on aspects of higher derivative gravity theories;
  - Efran Esmaili, August 2015, who worked on classification of 4d black hole solutions on Einsten-Maxwell-Lambda theory;
  - Reza Javadinejad, July 2016, who worked on Virasoro and NHEG algebra coadjoint orbits;
  - Ghazaleh Asghari, 2017 who is working on aspects of BMS_3 and Virasoro algebra and its orbits and modules and finished her MSc in Jan. 2018.
  - Hooman Neshat (from Sharif Uni.), as his MSc thesis which defended in June 2019, made a written version of my lecture notes on black hole physics.
  - Amin Aalipour (from Sharif Uni.), as his MSc thesis which defended in Sept 2024, on semiclassical aspects black hole physics and black hole complementarity.

Invited Seminars and Lectures

- Seminar at the 3rd Puri Workshop, 1998, Puri India.

- Workshop on String Theory and Noncommutative Geometry, Torino, Italy, Sep 2000, (Invited Lecturer).

- Seminar in Roma II University, Nov. 2000, Roma, Italy.

- Seminar in Madrid University, Dec. 2000, Madrid, Spain.

- Seminar in Milan University (INFN sezione di Milano), Feb. 2001, Milano, Italy.

- Seminars in Helsinki University, Helsinki Finland, Sep. 2000 and May 2001.

- Invited Lecturer in European Workshop on the Light-cone Quantization, Sep. 2001, Trento, Italy.

- Three seminars at SLAC, October 2001, February 2003 and August 2004.

- Seminar at UC Berkeley, April 2002.

- Seminars at Brown and Harvard Universities and IAS, Princeton , April 2003.

- Seminar at QTS3 conference, Cincinnati, OH, Sep. 2003.

- Seminars at UCLA, Uni. of Southern California, CalTech March 2004.

- Seminar at KITP, UC Santa Barbara, April 2004.

- Seminars at MIT and Princeton University April 2004.

- Seminar at University of Pennsylvania May 2004.

- Seminar at UC San Diego May 2004.

- Seminars at ICTP, Trieste, October and November 2004.

- Three lectures as invited speaker, on `Ting Graviton Matrix Theory (TGMT)`, at *Mini Spring Workshop on Field Theories*, May 2005, KIAS, Seoul, Korea.

- Invited Lecture on `DLCQ of type IIB string theory on AdS`$_5\times$ `S`^{5}`,` at *Third Crete Regional Meeting in String Theory*, June 2005, Orthodox Academy of Crete, Kolymbari, June 23- July 2 2005.

- Lectures on `Fuzzy Spaces and NCG in Physics,` in *the international school and work-*

shop on noncommutative geometry, **NCG2005**, Sep. 2005, IPM, Tehran, Iran.

• Colloquium talk at McGill University, Canada on *What string has taught us about the quantum structure of space-time*, in Feb. 2006.

• Plenary seminar at the 12th regional conference on Mathematical Physics, Islamabad, Pakistan, March 2006.

• Two seminars in the IPM School & Conference on Lepton and Hadron Physics, **ILHP06**, IPM, Tehran, May 19 2006.

• *Invited Speaker in annual strings meeting, "***Strings 2006***" on* `Tiny Graviton Matrix Theory`, June 19-24 2006, Beijing, China.

• Seminar at the Int'l Conference on High Energy Physics **ICHEP'06**, July 26-August 2, 2006, Moscow, Russia.

• Invited seminar in *the* 38^{th} *International Ahrenshoop Symposium* on `Recent Developments in String/M-Theory and Field Theory`, Aug. 28th-Sep. 1st (2006), Berlin, Germany.

• Seminar in AEI, Max Planck Inst. Potsdam, Sep. 2006, Germany.

• Seminar in the *One day Workshop on LHC and CMS physics*, `Future of Particle Physics`," Oct. 2006, IPM, Tehran.

• Seminar in ICTP, Trieste, Feb. 2007.

• Seminar in SISSA Wednesday seminars, March 2007.

• Series of Lectures as invited speaker in the *Noncommutative Geometry and Phenomenology of Particle Physics* school, IUT, Isfahan, Iran, 2,3 May 2007.

• Invited Seminar in *MidEast4 conference*, on `Lovelock Theories at the Crossroads of Palatini and Metric Formulations`, Patras, Greece, June 2007.

• Invited speaker in *Aspects of Membrane Dynamics*, on `Quantization of D3-branes` KTH, Stockholm, Sweden, June 2007.

• Invited speaker in *ICTP Spring School on String theory*, on `Noncommutative Geometry from Strings and Branes`, ICTP, Trieste, Italy, March 2008.

• Lectures on `New decoupled sectors in` $\mathcal{N} = 4$ `SYM`, in *ISS2008, Isfahan,* IRAN.

• Invited Lectures on `Introduction to AdS/CFT`, Feza Gürsey Institute, Istanbul, Turkey, June 2008.

• Invited Colloquium on `Brane Dynamics and Nambu Brackets`, Bogazici University, Is-

tanbul, Turkey, June 2008.

• Invited seminars on `Aspects of Multi M2-brane Dynamics` and on `Near Intersecting Giant Gravitons`, **CQUeST**, Seoul, Korea, July 2008.

• Special Invited Lecture on `Noncommutative Realization of Cohen-Glashow very Special Relativity`, in *XXVII Int'l colloquium on* Group Theoretical Methods in Physics; and also special seminar in **The Hermann Weyl Prize ceremony** Yerevan, Armenia, August 2008.

• Invited talk on `Quantum Gravity, necessities and prospects`, in the *Annual National Physics Conference of Iran*, August 2008, Kashan, Iran.

• Invited colloquium talks in Tehran University (in November 2008), in 3rd Payam-e-Nour University physics conference (in December 2008, Ahwaz, Iran) and in Iran Elm-o-Sanaat Univ. (Feb. 2009) on `Particle Physics, past, present and prospects for near future`.

• Seminar on `M-flation` in the Abdus Salam ICTP, March 2009.

• Seminar on `Realization of Cohen-Glashow Very-Special-Relativity on Noncommutative Plane`, in Phys. dept. Helsinki University, Helsinki, Finland, April 2009.

• Seminars in *Workshop on string theory and cosmology*, on `History of particle physics and its prospects in near future` and on `Nearing Intersecting Giants and New Decoupled Sectors in N=4 SYM`, Dec. 2009, Wits Uni., South-Africa.

• Seminar on `O-BTZ: Orientifolded BTZ black holes` in the Abdus Salam ICTP and Amsterdam Uni. in April 2010, and in SISSA May 2010.

• Seminar on `Matrix Inflation`, in Phys. dept. Helsinki University, Helsinki, Finland, April 2010.

• Seminar on `Beyond Logarithmic corrections to the Cardy Formula`, Physics department of Uppsala University, Sweden, June 2011.

• Gong Show seminar on `Gauge-flation: Inflation from non-Abelian gauge fields`, *Strings 2011*, Uppsala, Sweden, July 2011.

• Invited speaker to *Strings, Branes and Supergravity conference*, Istanbul, Turkey, August, 2011, Seminar on `EVH Black Holes, Their AdS`$_3$ `Throats and EVH/CFT Proposal`.

• Invited talks on `Gauge-flation: Inflation from non-Abelian gauge fields`, in 7^{th} *conference on Quantum Theory and Symmetries*, Prague, Czech Republic and in Physics Department of Helsinki University, August 2011.

• Invited seminar on `EVH Black Holes, Their AdS`$_3$ `Throats and EVH/CFT Proposal`, in conference on *Recent Advances in Quantum Field and String Theory*, Tbilisi, Georgia, Sep. 2011.

• Invited Lecture series on AdS/CFT correspondence and holographic renromalization, Mid.East University, Ankara Turkey, Jan. 2012.

• Invited seminar on Gauge-flation: Non-Abelian gauge field inflation Bogazici Uni. Istanbul, Turkey, Feb. 2012.

• Invited Lecture series on EVH Black Holes, Their AdS_3 Throats and EVH/CFT Proposal, March 2012, Wits Uni., South-Africa.

• Seminar on M-flation, its UV sensitivity and resolution to η-problem, in the Abdus Salam ICTP, Trieste, July 2012.

• Invited plenary talk on Quantum Extremal Black Holes in conference on *Supersymmetric Integrable Systems*, Yerevan, Armenia, July 2012.

• Invited seminar on Extremal Black Holes and First Law of Thermodynamics in *CQUeST, Sogang University*, Korea, January 2013.

• Invited colloquium seminar on Symmetries in Physics, in IPM-Isfahan, mathematics department, 24 Jan. 2013 (5 Bahman 1391); Isfahan University, Iran.

• Invited colloquium seminar on High energy physics, from cosmos to sub-nuclear particles, 12 May 2013; Cognitive Science Department, IPM.

• Visiting scholar and invited colloquium in *Izmir Technical University*, Izmir, Turkey, June 2013.

• Invited speaker to *Open Questions in Open Universe: de Sitter space, singularities and branes* conference, on Laws of NHEG Mechanics, Bosphorus University, Istanbul, Turkey, August 2013.

• Invited speaker to *Foundations of Physics Workshop*, on Implications of 126 GeV Higgs for SM and Beyond, IPM Tehran, Nov. 2013.

• Invited speaker to *First Math-Physics Workshop*, on Lie (super)algebras and their applications in physics, IPM-Isfahan, Isfahan University, Nov. 2013.

• Colloquium seminar on Black Holes and Their Unresolved Mysteries, Tehran University, Tehran, Nov. 2013.

• Invited speaker on Quantum Aspects of Black Holes, in *Topical meeting on Black Holes*, IPM, Tehran, Dec. 2013.

• Invited lectures on Symmetries, Group theory and Lie Algebras, in *IPM one-day school on symmetries in high energy physics*, IPM, Tehran, Dec. 2013.

• Invited visiting professor and lecturer, Kyung Hee University, Seoul, Korea. Lecture series

on *Conformal Field Theory in Various dimensions*, April-May 2-14.

• Invited talk on `Laws of NHEG Mechanics`, KIAS, Seoul, Korea, April 2014.

• Invited talk on `News Ideas in AdS`$_3$ `Quantum Gravity`, KIAS, Seoul, Korea, May 2014.

• Invited colloquium on `From Quarks to Cosmos world in a High Energy Physicist's viewpoint,` Physics Club, Tehran University, Tehran, July 2014.

• Invited lecturer at Recent progress in theoretical physics school and workshop on `Conformal Field Theory in three and four dimensions`, September 2014, Tabriz, Iran.

• Invited colloquium on `Quantum Gravity, necessity and the approaches to,` *Annual Physics Conference of Iran*, Zahedan, Sept. 2014. Also in Helsinki Institute of Physics, Helsinki Uni., Helsinki Finland , Sept. 2014.

• Invited seminar on `AdS`$_3$ `quantum gravity revisited`, Physique Theorique et Mathematique, Universite Libre de Bruxelles, Belgium, Oct. 2014.

• Invited colloquium on `Quantum Gravity, necessity and the approaches to,` Science Faculty, Khaje-Nasir University, Nov. 2014.

• Invited Lectures on `Four Topics in Black Hole Physics,` *School of Cosmology and Gravitation*, Physics Society of Iran and Shahid Beheshti University, 19 and 20 Nov. 2014.

• Colloquium on `Naturalness and Implications of LHC Results for Naturalness of Particle Physics Models`, School of Physics, IPM, March 2015.

• Invited colloquium on `Implications of Higgs discovery for standard model of particle physics and beyond,` Physics department Shahid Beheshti University, 5 May 2015.

• Invited Lecture on `Black Hole Physics,` *23rd Spring Conference*, IPM, Tehran, 20 May 2015.

• Invited talk on `NHEG Mechanics, Phase Space, Symmetries and Microstate counting`, in *3rd theoretical physics workshop on Higher Spins and Holography*, July 2015, Bogazici Uni. Istanbul.

• Invited plenary talk on `Extremal black holes and their phase space and symmetries`, in *PASCOS'15*, July 2015, ICTP, Trieste, Italy.

• Invited plenary talk on `NHEG Phase Space, NHEG Algebra`, *in XI Symposium on Quantum Theory and Symmetries (QTS 9th)*, July 2015, Yerevan, Armenia.

• Invited lectures on `Introduction to Black hole physics`, *Prelude to SIS'15 conference*, Sept. 2015, Yerevan, Armenia.

• Invited seminar on `Geometry of Virasoro Coadjoint Orbits`, *in Supersymmetry and Integrable Systems,* ***SIS'15***, Sept. 2015, Yerevan, Armenia.

• Invited seminar on `NHEG Phase Space, NHEG Algebra`, *in ICTP conference on Recent Progress in Quantum Field Theory and String Theory*, Sept. 2015, Yerevan, Armenia.

• Invited colloquium on `Quest for Quantum Gravity, Necessities and Approaches to,` Mathematics department of Tehran University, 2 Nov. 2015.

• Invited seminar `On Possible Implications of Philosophical Standpoints in Physics Formulations,` Philosophy department of Shahihd Beheshti University, 30 Nov. 2015.

• Invited colloquia on `Hundred Years with Einstein's General Relativity,` physics department of Amir-Kabir University, 9 Dec. 2015 & in IPM monthly colloquia, 30 Dec. 2015.

• Invited plenary talk on `Almost 50 years with String Theory`, *in annual particles, fields and strings meeting of Iranain Physics Society*, Jan. 2016, Isfahan, Iran.

• Invited lecture on `Cosmological Constant Problems, from the ''biggest blunder'' to the deepest puzzles`, *in Tehran Meeting on Modified Gravities*, Jan. 2016, IPM, Tehran.

• Seminar on `3d Bulk Geometry of Virasoro Coadjoint Orbits`, *ICTP*, March 2016, Trieste, Italy.

• Invited seminar on `Residual Diffeomorphisms and Symplectic Hair on Black Holes`, in *Recent developments in symmetries and (super)gravity theories*, June 2016, Bogazici Uni. Istanbul.

• Invited lectures on `Strong Interactions, effective field theory descriptions`, in *Field Theoretical Aspects of Strong Interactions*, 4 August 2016, IPM, Tehran.

• Colloquium seminar on `Horizon Fluffs: A proposal for black hole quantum microstates`, 10 August 2016, IPM, Tehran.

• Invited lectures on `Black Hole Physics`, in *Fourth School on High Energy Physics and Quantum Field Theory*, 20-23 August 2016, Yerevan, Armenia.

• Invited Seminar on `Horizon Fluffs and Microstates of Black Holes`, in *Quantum Aspects of Black Holes and its Recent Progress*, 25-27 August 2016, Yerevan, Armenia.

• Invited Colloquium Seminar on `Horizon Fluff, a proposal for black hole microstates`, on March 24th 2017 in NITheP, Stellenbosch, South Africa.

• Invited Seminar on `Horizon Fluff and Microstates of Black Holes`, in *Jo'burg workshop on black holes and entanglement*, March 2017, Wits Uni., Johannesburg South Africa.

• Seminar on `Horizon Fluffs and Microstates of Black Holes`, at ICTP, Trieste Italy,

April 2017.

• Seminar on `Horizon Fluff, a proposal for black hole microstates`, at focus week on *Recent developments in AdS3 black-hole physics* within the program "New Developments in AdS_3/CFT_2 Holography" in April 2017 at GGI in Florence, Italy; April 2017.

• Invited colloquium on `Quest for Quantum Gravity, Necessities and Approaches to,` Physics department of Tarbiat Modares University, 20 May 2017.

• Seminar on `Yang-Baxter` σ`-models on Deformed` $AdS_5 \times S^5$ `and Holographic Noncommutativity`, in August 2017 in ICTP, Trieste, Italy and also in TUW, Vienna in September 2017.

• Seminar on `Fluffing Extremal Kerr`, in TUW, Vienna, September 2017.

• Invited lecture on `Near Horizon Extremal Geometry Symplectic Symmetry Algebra and Its Coadjoint Orbits`, at Regional Training Network in Theoretical Physics *"Physics of the Standard Model and Beyond,"* September 2017, Tbilisi, Georgia.

• Invited colloquium on `A Century with General Relativity, from Deflection of Light to Gravity Waves`, at Yazd University, 24 October 2017.

• Invited plenary seminar on `Classical, semiclassical, quantum and observational research topics in black hole physics`, in National Conference in Gravity and Cosmology, 25 January 2018, Isfahan Tech. Uni., Isfahan.

• Seminar on `Soft Hair on Generic Horizons: Implications for Black Hole Microstates`, at 2018 JOINT FAR/ANSEF-ICTP and RDP-VW summer school in theoretical physics, Yerevan Armenia & at ICTP, Trieste Italy, July 2018.

• Colloquium on `Tribute to Stephen Hawking, A great and inspiring physicist,` IPM, Tehran, 15 August 2018.

• Invited seminar on H_0 `Tension and the Dark Energy`, at SBU, Tehran, (and also at IPM), Oct. 2018 & also in workshop on H_0 tension and the Swampland, Nov. 2018, APCTP, Korea.

• Invited seminar on `Black hole microstates and the horizon fluff proposal`, Nov. 2018, at APCTP, Korea.

• Colloquium on `Can String Theory Avoid Its Own Swampland?,` IPM, Tehran, 30 Jan. 2019.

• Seminar on `Quantum Null Energy Condition and its (non)saturation in 2d CFTs`, at Uni. of Tehran, March 2019.

• Invited colloquium on `Black hole physics, past, present and future`, Shahroud Uni. May 2019.

• Invited colloquium on `Physics of black holes, past, present and future`, at Uni. of Tehran, May 2019.

• Seminar on `Soft Hair on Generic Horizons and Black Hole Microstates`, at School and workshop "New Pathways in Explorations of Quantum Field Theory and Quantum Gravity Beyond Supersymmetry," ICTP, Trieste, June 2019.

• Invited seminar on `Super T-Witts from the Horizon,` at TUW, Vienna, Oct. 2019.

• Invited colloquium seminar on `Quest for Quantum Gravity, Necessities and Approaches,` at EAIFR, Rwanda, Feb. 2020.

• Invited seminar on `T-Witts from the Horizon and Black Hole Microstates,` at SISSA, Trieste, Feb. 2020.

• Invited seminars on `Horizon 2020,` at BIMSA, China; & also in Dual Mystery Channel, IIT Madras, India, Nov. 2020.

• Invited seminar on `Null Boundary Symmetries,` in 5^{th} Iranian Math-Phys. conference, Qom tech. Uni., Dec. 2020; & also in OIST, Okinawa, Japan, 12 April 2021.

• Invited seminar on `Temperature in Horndeski Black Holes`, TUW Vienna, Jan. 2021; & in SISSA, Trieste, Feb. 2021.

• Invited seminar on `Horizon 2020,` in Brussels joint seminars, Jan. 2021; & in ICTP Trieste, Feb. 2021.

• Seminar on `On the progress in physical models and theories,` in school of analytic philosophy, IPM, Tehran, Feb. 2021.

• Invited colloquium seminar on H_0 `Tension & Standard Model of Cosmology` at Uni. of Tehran Nov. 2020; at Shahid Beheshti Uni, Dec. 2020; at PUC, Rio de Janeiro April 2021; at IASBS Zanjan April 2021.

• Invited seminar on `Symmetries and Charges at Null Boundaries,` in 11^{th} Regional Meeting in String Theory, Crete, Greece, 19 May 2021.

• Seminar on `Running Hubble Tension`, PASCOS 2021, KASI, Korea, June 2021.

• Invited seminar on `Horizons 2021, an overview,` in International Conference on Holography, String Theory and Discrete Approaches, Aug. 2021.

• Invited seminar on `Symmetries at Null Boundaries`, in school and Workshop *ASPECTS OF SYMMETRY*, Tbilisi, Georgia, November 8-12, 2021.

• Invited seminar on `Quest for Quantum Gravity, necessities for and approaches to` in Qom University, 18 Nov. 2021.

• Invited colloquium seminar on `Gravity and Thermodynamics,` in University of Tehran, December 2021.

• Invited seminar on `Null Surface Thermodynamics,` in International Conference on Massive Gravity Theory and Physics of Black Hole, Tabriz University, December 2021.

• Invited seminar on `Null Surface Thermodynamics,` at ICTS string seminar series, January 2022, the seminar may be found on YouTube.

• Invited colloquium seminar on `Progress in Scientific Theories,` at school of physics colloquium series, IPM, Tehran, January 2022.

• Invited seminar on `Null Surface Thermodynamics,` at Gravity and Gravitational Dynamics (Gr@v) group in Aveiro, 4 February 2022.

• Invited seminar on `Null Surface Thermodynamics,` at Perimeter Institute, Canada, 17 February 2022. It may be found **here**, and also in internationally organized Copernicus seminar series, March 22nd 2022.

• Invited keynote speaker on `Symmetries at Causal Boundaries,` at The 1st International Conference of Holography and its Applications, 9 March 2022. It may be found **here** and also *here*, & also TUW, Vienna June 2022.

• Invited keynote speaker on `Null Surface Thermodynamics,` in Gravitation, Astrophysics and Cosmology (GSGAC2022), Tokyo, Japan during April 21-23, 2022.

• Seminar on `Gravity` $\leftrightharpoons$ `Thermodynamics,` ICTP HECAP group, 20 May 2022 & also in *Gravity: Current challenges in black hole physics and cosmology*, YITP, Kyoto, Japan, 21 June 2022.

• Seminar on `Physics @ Null Boundaries - Edition 2022,` ULB, Brussels, June 2022 & TUW, Vienna June 2022.

• Seminar on `Null Surface Thermodynamics`, in *IFPU Focus-Week Program: Holography and gravitational waves*, IFPU/SISSA, July 2022.

• Seminar on `Null Strings & BTZ Black Hole Microstates`, in *BIMSA Workshop on String theory at TSIMF*, BIMSA/Sayna China, Nov. 2022.

• Invited seminar on `Dipole Cosmology`, in *Copernicus Seminar Series* & *CosmoVerse Seminar series*, June & July 2023.

• Invited seminar on `Hydro/Thermo Dynamics at Causal Boundaries, Examples in 3d Gravity`, in *Supergravity, Strings and Branes Workshop*, Feza Gursey Center, Istanbul, Turkey, June 19-22, 2023.

• Invited seminar on `Hydro/Thermo Dynamics at Causal Boundaries, Examples in 3d`

Gravity, in IFPU/SISSA, Trieste Italy, July 2023.

• Invited seminar on Dipole ΛCDM Cosmology, at ICTP, Trieste, Italy, July 2023.

• Invited seminars on Hydro/Thermo Dynamics at Causal Boundaries, in ULB, Brussels, August 2023.

• Invited plenary seminar on Approaches to Quantum Gravity, in *Quantum Information and Quantum Gravity workshop*, IPM, Tehran, August 2023.

• Invited lectures on Topics on black holes on thermodynamics and surface charges, in ULB, Brussels, August 2023.

• Invited seminar on Dipole ΛCDM Cosmology, in *Thessaloniki Cosmology Workshop*, Greece, Sept. 2023.

• Seminar on Null Strings & BTZ Black Hole Microstates, in ULB, Brussels, September 2023.

• Invited seminar on Null Strings & BTZ Black Hole Microstates, in Indian Strings, Mumbai, India, December 2023.

• Invited seminar on Necessities and Approaches to Quantum Gravity, in Annual particles and fields conference of Physics Society of Iran, Shiraz University, Shiraz, Iran, February 2024.

• Invited seminar on Hydrodynamics at causal boundaries, examples in 3d gravity, in GRAV@UDEC's online seminar series, Universidad de Concepción, Chile, 8 May 2024.

• Invited seminar on Covariant Phase Space Formalism for Fluctuating Boundaries, in SISSA, Trieste Italy, 4 July 2024.

• Invited seminar on Of Strings and Sandwiches, in ICTP, Trieste Italy, 18 July 2024.

• Invited keynote speaker, seminar on Reloading Black Hole Thermodynamics with Noether Charges, in *International Online Conference on Holography and its Applications*, 17, 18 August 2024.

• Invited seminar on Charge in General Relativity and Black Hole Thermodynamics, in *ICTS, Bengaluru, India*, 7 Nov. 2024.

• Invited seminar on Quantum Worldsheet Equivalence Principle, , *in ICCUB, Barcelona*, 8 Nov. 2024.

• Invited seminar on How to Digest Virasoro Sandwiches, , *in Holography, Strings and the other fun things, II*, Goa, India, 17 Feb. 2025 & also in BIMSA online seminar series, 10 April 2025.

• Invited seminar on `A Covariant Arrow of Time`, *in Durmus Demir Memorial workshop*, Sabanci Uni, Istanbul, Turkey, 24 Feb. 2025.

• Seminar on `A Reflection on the Implications of Artificial Cognition on Philosophical Concepts like Realism and Determinism`, *in school of philosophy*, IPM, 14 April 2025.

• Invited seminar on `Sandwich Quantization of String Theory`, *String-Math 2025 @ BIMSA*, China, June 2025.

• Invited lecture series on `Freelance Holography`, *@ BIMSA*, China, July 2025.

• Invited keynote speaker on `RG Flow Iduced Gravity`, *@ TTbar Conference*, NingBo, China, Oct. 2025.

Public Lectures and Works on Public Understanding of Science

Another scientific activity I have been involved in is giving general public physics talks in several places in Iran or in the region and writing for increasing public understanding of science and in particular physics. Here is a short list of my such activities:

• Principle Investigator in the project `Public Understanding of Physics in Iran, the present status and plans for future`. This project was commissioned by the Iranian Academy of Sciences and was carried out in about two years, 2010-2012.

• Several articles in Iranian dailies on the importance of science in general and basic sciences in particular, in the modern societies.

• Invited colloquium on `Physics and Interdisciplinary physical sciences,` in Academy of Science of Iran, November 2013; Tarbiat Moddares Uni. Tehran, in 2014; School of Biological Sciences, IPM, Tehran, May 2014; Tabriz University 2014.

• Invited colloquium on `World in a High Energy Physicist's viewpoint,` Department of Energy Engineering, Sharif University of Technology, Tehran, Nov. 2014.

• An essay/article written for a science magazine in Armenia (a Russian translation was published there) on `Black Holes`, 2015.

• Invited Lectures on `Symmetries in Physics,` Physics department of Bu-Ali Sina University, Hamedan, Iran, 22 April 2015.

• Invited plenary talk in "Zharfa" program in Sharif Uni. on `Future of High Energy particle physics,` 12 Dec. 2017, Physics dept. Sharif Uni., Tehran.

• Invited plenary talk on `Almost 50 years with String Theory`, *in Shiraz physics club*, Feb. 2018, Shiraz, Iran.

• Invited colloquium on `Tribute to Stephen Hawking, A great and inspiring physicist,` Physics Club, Tehran University, Tehran, May 2018.

• Invited colloquium on `From Quarks to Cosmos: A physcist's view of the world`, at Kerman University, May 2018.

• Invited colloquium on `From Quarks to Cosmos: A physicist's view of the world`, at Sahand Tech. University, Tabriz, Feb. 2018.

• Invited colloquium on `Early Universe Cosmology and Inflation Models`, Physics club, Shahroud Uni, May 2019.

• Invited plenary talk in "Zharfa" program in Sharif Uni. on `Progress in Physical models and theories,` March 2021, Physics dept. Sharif Uni., Tehran.

• Invited lecture on `Necessities and Quest for Quantum Gravity`, "Interdisciplinary Schools, by Sharif Uni. students association, June 2021.

• Invited lecture on `Research in physics and its evaluations measures`, in "research week programs", Guilan Uni., & also in Sahand Uni. in Tabriz, December 2021.

• Invited lecture on `History of Cosmology,` in "Khayyam's memorial day", Neyshabour, 17 May 2023; Neyshabour University.

• Invited interview with CosmoVerse, COST Action, June 2023. Read more **here**.

• Article (coauthored by D. Wiltshire, E. O. Colgain, M.M. Sh-J & J. Wagner) with title *Cosmological models are built on a simple, century-old idea – but new observations demand a radical rethink*, Published by `THE COVERSATION`, on June 2023. For the full article see **here**.

• Invited colloquium talk on `More than Half a Century With String Theory`, *in Physics Club*, Uni. of Tehran, 2 May 2025, Iran.

Nine Selected Publications

1. F. Ardalan, H. Arfaei, M. M. Sheikh-Jabbari,

   "*Noncommutative Geometry From Strings and Branes*,"

   JHEP **9902** (1999) 016, **hep-th/9810072**.

2. M. M. Sheikh-Jabbari,

   "*Discrete Symmetries (C,P,T) in Noncommutative Field Theories*,"

   Phys. Rev. Lett. **84** (2000) 5265-5268, **hep-th/0001167**.

3. M. Chaichian, M. M. Sheikh-Jabbari, A. Tureanu,

   "*Hydrogen Atom Spectrum and the Lamb Shift in Noncommutative QED*,"

   Phys. Rev. Lett. **86** (2001) 2716-2720, **hep-th/0010175**.

4. M. M. Sheikh-Jabbari,

   "*Tiny Graviton Matrix Theory: DLCQ of type IIB Plane-Wave String Theory, A Conjecture*,"

   JHEP **0409** (2004) 017, **hep-th/0406214**.

5. S. Alexander, M. Peskin, M. M. Sheikh-Jabbari,

   "*Leptogenesis from Gravitational Waves in Models of Inflation*",

   Phys. Rev. Lett. **96** (2006) 081301, **hep-th/0403069**.

6. J. Maldacena, M. M. Sheikh-Jabbari, M. Van Raamsdonk,

   "*Transverse Fivebranes in Matrix Theory*,"

   JHEP **0302** (2003) 019, **hep-th/0211073**.

7. A. Maleknejad, M.M. Sheikh-Jabbari,

   "*Gauge-flation: Inflation From Non-Abelian Gauge Fields*,"

   Phys. Lett. **B723** (2013) 224, **arXiv: 1102.1513 [hep-ph]**.

8. H.R. Afshar, D. Grumiller, M.M. Sheikh-Jabbari,

   "*Black Hole Horizon Fluffs:*
   Near Horizon Soft Hairs as Microstates of Three Dimensional Black Holes,"

   Phys. Rev. **D96** (2017) 084032, **arXiv: 1607.00009 [hep-th]**.

9. D. Grumiller, A. Perez, R. Troncoso, M.M. Sheikh-Jabbari and C. Zwikel,

   "*Soft Hairs on black hole and cosmological horizons in any dimension*

   Phys.Rev.Lett., **124** (2020) 041601 **arXiv: 1908.09833 [hep-th]**.

List of All Research Papers

1. H. Arfaei, M. M. Sheikh-Jabbari,

   "Different D-brane Interactions,"

   Phys. Lett. **B394** (1997) 288-296, **hep-th/9608167**.

2. H. Arfaei, M. M. Sheikh-Jabbari,

   "Mixed Boundary Conditions and Brane-String Bound States,"

   Nucl. Phys. **B526** (1998) 278-294, **hep-th/9709054**.

3. M. M. Sheikh-Jabbari,

   "*Classification of Different Branes at Angles*, "

   Phys. Lett. **B420** (1998) 279-284, **hep-th/9710121**.

4. M. M. Sheikh-Jabbari,

   "*More on Mixed Boundary Conditions and D-branes Bound States*,"

   Phys. Lett. **B425** (1998) 48-54, **hep-th/9712199**.

5. F. Ardalan, H. Arfaei, M. M. Sheikh-Jabbari,

   "*Mixed Branes and M(atrix) Theory on Noncommutative Torus*,"

   Proceedings of Boston 1998, Particles, strings and cosmology (PASCOS98), 653-656, **hep-th/9803067**.

6. F. Ardalan, H. Arfaei, M. M. Sheikh-Jabbari,

   "*Noncommutative Geometry From Strings and Branes*,"

   JHEP **9902** (1999) 016, **hep-th/9810072**.

7. M. M. Sheikh-Jabbari,

   "*Supersymmetric Yang-Mills Theory on Noncommutative Torus from Open Strings Interactions*,"

   Phys. Lett. **B450** (1999) 119-125, **hep-th/9810179**.

8. M. M. Sheikh-Jabbari,

   "*Open Strings in a B-field Background as Electric Dipoles*,"

Phys. Lett. **B455** (1999) 129-134, **hep-th/9901080**.

9. M. M. Sheikh-Jabbari,

"*One Loop Renormalizability of Supersymmetric Yang-Mills Theories on Noncommutative Two-Torus*,"

JHEP **9906** (1999) 015, **hep-th/9903107**.

10. F. Ardalan, H. Arfaei, M. M. Sheikh-Jabbari,

"*Dirac Quantization of Open Strings and Noncommutativity in Branes*,"

Nucl. Phys. **B576** (2000) 578-596, **hep-th/9906161**.

11. M. M. Sheikh-Jabbari, A. Shirzad,

"*Boundary Conditions as Dirac Constraints*,"

Eur.Phys.J. **C19** (2001) 383, **hep-th/9907055**.

12. M. Alishahiha, Yaron Oz, M. M. Sheikh-Jabbari,

"*Supergravity and Large N Noncommutative Field Theories*,"

JHEP **9911** (1999) 007, **hep-th/9909215**.

13. M. M. Sheikh-Jabbari,

"*On the Deformation of Λ-Symmetry in B-field Background*,"

Phys. Lett. **B477** (2000) 325-328, **hep-th/9910258**.

14. M. M. Sheikh-Jabbari,

"*A Note on T-Duality, Open Strings in B-field Background and Canonical Transformations*,"

Phys. Lett. **B474** (2000) 292-294, **hep-th/9911203**.

15. D. Polyakov, M. M. Sheikh-Jabbari,

"*Closed String Brane-Like States, Brane Bound States and Noncommutative Branes*,"

Phys. Lett. **B484** (2000) 133-140, **hep-th/9912200**.

16. M.M. Sheikh-Jabbari,

"*Noncommutative Super Yang-Mills Theories with 8 Supercharges and Brane Configurations*,"

Nucl. Phys. **B587** (2000) 195-206, **hep-th/0001089**.

17. M. M. Sheikh-Jabbari,

"*Discrete Symmetries (C,P,T) in Noncommutative Field Theories*,"

Phys. Rev. Lett. **84** (2000) 5265-5268, **hep-th/0001167**.

18. L. Bonora, M. Schnabl, M. M. Sheikh-Jabbari, A. Tomasiello,

"*Noncommutative SO(n) and Sp(n) Gauge Theories*,"

Nucl. Phys. **B589** (2000) 461-474, **hep-th/0006091**.

19. J. G. Russo, M. M. Sheikh-Jabbari,

"*On Noncommutative Open String Theories*,"

JHEP **0007** (2000) 052, **hep-th/0006202**.

20. A. Micu, M. M. Sheikh-Jabbari,

"*Noncommutative* Φ^4 *Theory at Two Loops*,"

JHEP **0101** (2001) 025, **hep-th/0008057**.

21. I.F. Riad, M.M. Sheikh-Jabbari,

"*Noncommutative QED and Anomalous Dipole Moments*,"

JHEP **0008** (2000) 045, **hep-th/0008132**.

22. N. Chair, M. M. Sheikh-Jabbari,

"*Pair Production by a Constant External Field in Noncommutative QED*,"

Phys. Lett. **B504** (2001) 141, **hep-th/0009037**.

23. J. G. Russo, M. M. Sheikh-Jabbari,

"*Strong Coupling Effects in noncommutative spaces from OM Theory and supergravity*,"

Nucl. Phys. **B600** (2001) 62, **hep-th/0009141**.

24. M. Chaichian, M. M. Sheikh-Jabbari, A. Tureanu,

"*Hydrogen Atom Spectrum and the Lamb Shift in Noncommutative QED*,"

Phys. Rev. Lett. **86** (2001) 2716-2720, **hep-th/0010175**.

25. M. Chaichian, A. Demichev, P. Presnajder, M. M. Sheikh-Jabbari and A. Tureanu,

"*Aharonov-Bohm Effect in Noncommutative Spaces*,"

Phys. Lett. **B527** (2002) 149, **hep-th/0012175**.

26. Anupam Mazumdar, Mohammad M. Sheikh-Jabbari,

"*Noncommutativity in Space and Primordial Magnetic Field*,"

Phys. Rev. Lett. **87** (2001) 011301, **hep-ph/0012363**.

27. M. M. Sheikh-Jabbari,

"*Noncommutative Open String Theories and Their Dualities*,"

Mod.Phys.Lett. **A16** (2001) 349, **hep-th/0101045**.

28. M. Chaichian, A. Demichev, P. Presnajder, M. M. Sheikh-Jabbari and A. Tureanu,

"*Quantum Theories on Noncommutative Spaces with Nontrivial Topology: Aharonov-Bohm and Casimir Effects*,"

Nucl. Phys. **B611** (2001) 383-402, **hep-th/0101209**.

29. M. M. Sheikh-Jabbari,

"*A Note on Noncommutative Chern-Simons Theories*,"

Phys. Lett. **B510** (2001) 247-254, **hep-th/0102092**.

30. Ashok Das and Mohammad M. Sheikh-Jabbari,

"*Absence of Higher Order Corrections to Noncommutative Chern-Simons Coupling*,"

JHEP **0106** (2001) 028, **hep-th/0103139**.

31. I. Bars, M. M. Sheikh-Jabbari, M. Vasiliev,

"*Noncommutative $o_\star(N)$ and $usp_\star(2N)$ Algebras and the Corresponding Gauge Field Theories*,"

Phys. Rev. **D64** (2001) 086004, **hep-th/0103209**.

32. M. Chaichian, P. Presnajder, M. M. Sheikh-Jabbari, A. Tureanu,

"*Noncommutative Gauge Field Theories: A No-Go Theorem*,"

Phys. Lett. **B526** (2002) 132-136, **hep-th/0107037**.

33. M. Chaichian, P. Presnajder, M. M. Sheikh-Jabbari, A. Tureanu,

"*Noncommutative Standard Model: Model Building*,"

Eur.Phys.J. **C29** (2003) 413, **hep-th/0107055**.

34. A. B. Hammou, M. Lagraa, M. M. Sheikh-Jabbari,

"*Coherent State Induced Star-Product on R^3_λ and the Fuzzy Sphere*,"

Phys. Rev. **D66** (2002) 025025, **hep-th/0110291**.

35. Keshav Dasgupta, M. M. Sheikh-Jabbari,

"*Noncommutative Dipole Field Theories*,"

JHEP **0202** (2002) 002, **hep-th/0112064**.

36. M. Alishahiha, M. M. Sheikh-Jabbari,

"*The PP-Wave Limits of Orbifolded $AdS_5 \times S^5$*,"

Phys. Lett. **B535** (2002) 328, **hep-th/0203018**.

37. M. Alishahiha, M. M. Sheikh-Jabbari,

"*Strings on PP-Waves and Worldsheet Deconstruction*,"

Phys. Lett. **B538** (2002) 180, **hep-th/0204174**.

38. Keshav Dasgupta, M. M. Sheikh-Jabbari, M. Van Raamsdonk,

"*Matrix Perturbation Theory of M-Theory in a PP-wave*,"

JHEP **0205** (2002) 056, **hep-th/0205185**.

39. D. Bak, N. Ohta, M. M. Sheikh-Jabbari,

"*Supersymmetric brane - anti-brane systems: Matrix model description, stability and decoupling limits*,"

JHEP **0209** (2002) 048, **hep-th/0205265**.

40. K. Dasgupta, M. M. Sheikh-Jabbari, M. Van Raamsdonk,

"*Protected Multiplets of M-Theory on the Plane Wave*,"

JHEP **0209** (2002) 021, **hep-th/0207050**.

41. D. Bak, M. M. Sheikh-Jabbari,

"*Strong Evidence in Favor of the Existence of S-Matrix for Strings in Plane-Waves*,"

JHEP **0302** (2003) 019, **hep-th/0211073**.

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