

Curriculum Vitae

PERSONAL DETAILS

Name Surname: Hilmi Yanar

Date of Birth: 15.04.1987

Place of Birth: Nicosia-Turkish Republic of Northern Cyprus (TRNC)

Title: Dr.

Address: Department of Basic Medical Sciences, Faculty of Medicine, Girne American University, University Drive, PO Box 5, 99428 Karmi Campus, Karaoglanoglu, Kyrenia / TRNC

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EDUCATION

Ph.D.
(2012-2019) MERSIN UNIVERSITY
INSTITUTE OF SCIENCE / DEPARTMENT OF PHYSICS / PHYSICS
Thesis title: Modelling of electroencephalographic brain activity on macroscopic scale.
Supervisor: Prof. Dr. Ali Havare and Assoc. Prof. Dr. Yuriy Mishchenko

M.Sc.
(2009-2012) MERSIN UNIVERSITY
INSTITUTE OF SCIENCE / DEPARTMENT OF PHYSICS / PHYSICS
Thesis title: Bound states of relativistic particles for Pöschl-Teller potential in one dimension.
Supervisor: Assoc. Prof. Dr. Ali Havare

B.Sc.
(2004-2009) MERSIN UNIVERSITY
FACULTY OF ARTS AND SCIENCE / DEPARTMENT OF PHYSICS / PHYSICS

SOFTWARE SKILLS

LaTeX, Mathematica, MATLAB.

ACADEMIC EXPERIENCES

Lecturer
(2020-) Girne American University/Faculty of Medicine/Department of Fundamental Medical Sciences/Biophysics

PUBLICATIONS

A. Articles published in peer reviewed international journals (SCI & SCI-Expanded & ESCI)

1. H. Tilaver, H. Yanar, M. Salti, O. Aydogdu, "Energy-dependent one-dimensional potentials and scattering of relativistic particles." *European Physical Journal Plus*, 136, 140 (2021).
2. H. Yanar, A. Taş, M. Salti, O. Aydogdu, "Ro-vibrational energies of CO molecule via improved generalized Pöschl–Teller potential and Pekeris-type approximation." *European Physical Journal Plus*, 135, 292 (2020).
3. Y. Mishchenko, M. Kaya, E. Ozbay, H. Yanar, "Developing a Three- to Six-State EEG-Based Brain-Computer Interface for a Virtual Robotic Manipulator Control." *IEEE Transactions on Biomedical Engineering*, 66, 977-987 (2019).
4. H. Kisoglu, H. Yanar, O. Aydogdu, M. Salti, "Relativistic spectral bounds for the general molecular potential: application to a diatomic molecule." *Journal of Molecular Modeling*, 25, 143 (2019).
5. A. Tanisman, M. Salti, H. Yanar, O. Aydogdu, "D-dimensional cosmology via thermodynamics." *European Physical Journal Plus*, 134, 325 (2019).
6. M. Salti, O. Aydogdu, H. Yanar, "Reverse-engineered scalar fields in a D-dimensional framework." *Turkish Journal of Physics*, 43, 417-429 (2019).
7. O. Siginc, M. Salti, H. Yanar, O. Aydogdu, "Cosmology in scalar-tensor-vector theory via thermodynamics." *Modern Physics Letters A*, 33, 24 (2018).
8. Z. Ocak, H. Yanar, M. Salti, O. Aydogdu. "Relativistic spinless energies and thermodynamic properties of sodium dimer molecule." *Chemical Physics*, 513, 252-257 (2018).
9. M. Kaya, M. Binli, E. Ozbay, H. Yanar, Y. Mishchenko. "A large electroencephalographic motor imagery dataset for electroencephalographic brain computer interfaces." *Scientific Data*, 5, 180211 (2018).
10. M Salti, O Aydogdu, H Yanar, K Sogut, "Variable generalized Chaplygin gas in a 5D cosmology." *Annals of Physics*, 390, 131-142 (2018).
11. O. Sığınç, M. Salti, H. Yanar, O. Aydogdu, "Nature of entropy in a scalar-tensor theory of gravity." *Turkish Journal of Physics*, 42, 621-630 (2018).
12. M. Salti, H. Yanar, O. Aydogdu, K. Sogut, "Logarithmic-corrected Ricci and modified Chaplygin gas dark energy models in fractal framework." *European Physical Journal Plus*, 132, 225 (2017).
13. M Salti, O. Aydogdu, H. Yanar, F. Binbay, "Brans Dicke type teleparallel scalar-tensor theory." *Modern Physics Letters A*, 32, 34 (2017).
14. K. Sogut, H. Yanar, A. Havare, "Production of Dirac Particles in External Electromagnetic Fields." *Acta Physica Polonica B*, 48, 1493-1505 (2017).
15. M. Salti, H. Yanar, O. Aydogdu, K. Sogut, "Dynamics of ghost scalar fields in Kaluza-Klein cosmology." *Astrophysics and Space Science*, 362, 207 (2017).

16. K. Sogut, H. Yanar, A. Havare, "Fermionic Particle Production by Varying Electric and Magnetic Fields." *Communications in Theoretical Physics*, 66, 521-525 (2016).
17. H. Yanar, M. Salti, O. Aydogdu, I. Acikgoz, E. Yasar, "Galactic entropy in extended Kaluza-Klein cosmology." *Modern Physics Letters A*, 31, 06 (2016).
18. H. Yanar, O. Aydogdu, M. Salti, "Modelling of diatomic molecules." *Molecular Physics*, 114, 3134-3142 (2016).
19. O. Aydogdu, H. Yanar, "Bound and Scattering States for a Hyperbolic-Type Potential in View of a New Developed Approximation." *International Journal of Quantum Chemistry*, 115, 529-534 (2015).
20. M. Salti, O. Aydogdu, H. Yanar, "Kaluza-Klein nature of entropy function." *Modern Physics Letters A*, 30, 38 (2015).
21. H. Yanar, A. Havare, "Spin and Pseudospin Symmetry in Generalized Manning-Rosen Potential." *Advances in High Energy Physics*, Article ID: 915796 (2015).
22. H. Yanar, A. Havare, K. Sogut, "Scattering and Bound States of Duffin-Kemmer-Petiau Particles for q-Parameter Hyperbolic Pöschl-Teller Potential." *Advances in High Energy Physics*, Article ID: 840907 (2014).
23. E. Kangal, H. Yanar, A. Havare, K. Sogut, "Creation of vector bosons by an electric field in curved space-time." *Annals of Physics*, 343, 40-48 (2014).

B. Proceedings

International - Full text – Oral

1. O. Aydogdu, M Salti, H. Yanar, "Q-Independent General Molecular Potential." *International Engineering and Natural Sciences Conference (IENSC 2019)*, 2019-11-06, 2019-11-08, Diyarbakir, Turkey.
2. O. Aydogdu, M Salti, H. Yanar, "An Improved Potential Energy Function for Diatomic Molecules." *IFSCOM 2019*, 2019-06-07, 2019-06-10, Mersin, Turkey.
3. O. Aydogdu, M Salti, K. Sogut, H. Yanar, "Diatomic Molecules within Modified Shifted Improved Hellmann Potential." *International Engineering and Natural Sciences Conference (IENSC 2018)*, 2018-11-14, 2018-11-17, Diyarbakir, Turkey.
4. M. Kaya, H. Yanar, Y. Mishchenko, "Developing computational infrastructure for an EEG-based brain computer." *2016 24th Signal Processing and Communication Application Conference (SIU)*, 16.05.2016-19.05.2016, Zonguldak, Turkey.

International - Full text - Poster

5. H. Yanar, Y. Mishchenko, "A hidden Markov model of electroencephalographic brain activity for advanced EEG-based brain computer interfaces." *2016 24th Signal Processing and Communication Application Conference (SIU)*, 16.05.2016-19.05.2016, Zonguldak, Turkey.

International - Abstract - Oral

6. A. C. Tanisman, M. Saltı, H. Yanar, O. Aydođdu, “Generalized 2nd Law of Thermodynamics in D-Dimensional Framework.” International Engineering and Natural Sciences Conference (IENSC 2018), 2018-11-14, 2018-11-17, Diyarbakır, Turkey.
7. Z. Ocak, H. Yanar, O. Aydođdu, M. Saltı, “Thermodynamics properties of a Schrödinger particle interacting with general molecular potential.” IFSCOM2017, 03.05.2017-07.05.2017, Mersin, Turkey.
8. E. Özbay, Y. Mishchenko, M. Kaya, H. Yanar, “Control of a virtual robotic hand manipulator using a non-invasive EEG-based brain machine.” 1st International Mediterranean Science and Engineering Congress, 26.10.2016-28.10.2016, Adana, Turkey.
9. M. Saltı, H. Yanar, O. Aydođdu, “New Chaplygin Gas Model in Fractal Framework.” 1st International Mediterranean Science and Engineering Congress, 26.10.2016-28.10.2016, Adana, Turkey.
10. K. Sogut, H. Yanar, A. Havare, “Fermion Pair Production in the presence of electromagnetic fields.” 1st International Mediterranean Science and Engineering Congress, 26.10.2016-28.10.2016, Adana, Turkey.
11. H. Yanar, A. Havare, “Solution of the Dirac equation in three dimensions for the Generalized Manning-Rosen potential.” Turkish Physical Society 31st International Physics Congress, 21.07.2014-24.07.2014, Muđla, Turkey.
12. H. Yanar, O. Aydođdu, “Scattering and bound states of Dirac particles for the Asymmetric Hulthen potential.” Turkish Physical Society 31st International Physics Congress, 21.07.2014-24.07.2014, Muđla, Turkey.
13. H. Yanar, A. Havare, “Scattering states of Schrödinger particles for the general q-parameter hyperbolic Pöschl-Teller potential.” Turkish Physical Society 28th International Physics Congress, 06.09.2011-09.09.2011, Muđla, Turkey.

International - Abstract - Poster

14. Y. Mishchenko, M. Kaya, H. Yanar, E. Özbay, “Characterization of the key properties of electroencephalographic signal for noninvasive brain machine/computer interface applications.” Society for Neuroscience Annual Meeting 2016, 12.11.2016-16.11.2016, San Diego, USA.

National - Abstract - Oral

15. M. Saltı, O. Aydođdu, H. Yanar, “Fraktal Kuramda Holografik Quinstessence Skalere Alan.” 29. Ulusal Matematik Sempozyumu, 28.08.2016-31.08.2016, Mersin, Türkiye.

PROJECTS

1. “4th International Mersin Science Festival”, TUBITAK 4007, Project No:218B595, 27.09.2019-28.09.2019. (Assistant staff at Sky Observation event with telescope)
2. “International Mersin Science Night (MERSCIN)”, H2020-MSCA-Night, Project No:818725, 27.09.2019. (Assistant staff at Sky Observation event with telescope)
3. “3rd International Mersin Science Festival”, TUBITAK 4007, Project No: 118B791, 28.09.2018-30.09.2018. (Assistant staff)
4. “Gezen Bilim Yollarında”, TUBITAK, Project No:117B114, 01.07.2017 - 01.03.2018. (Assistant staff at Sky Observation event with telescope and at planetarium activities)
5. “Developing more efficient noninvasive brain machine interfaces”, TUBITAK, Project No: 113E611, 01.07.2014-31.12.2017. (Scholarship PhD student)
6. “Fermion pair creation by electromagnetic fields”, BAP, Project No: 2016-1-AP4-1425, 2017. (Researcher)
7. “Dark universe and the nature of entropy”, BAP, Project No: 2015-AP4-1231, 2016. (Researcher)
8. “International Mersin Science Festival”, TUBITAK, Project No:116B103, 29.09.2016-30.09.2016. (Assistant staff at planetarium activities)
9. “Bound states of relativistic particles for Pöschl-Teller potential in one dimension”, BAP, Project No: BAP FBE F (HY) 2011-1 YL. (Researcher)

CERTIFICATES & COURSES

1. Pedagogical Formation Education Certificate, Mersin University Teacher Certification Program, 2018-2019.
2. Certificate of training, Certificate Program on Innovative Approach Applications in Teaching: “Mind-Intelligence Games Trainer Training”, 22.01.2018-26.01.2018.
3. Certificate of achievement, Certificate Program on Mind Games Trainer Training, Istanbul University Continuing Education Application and Research Center, 22-23 January 2018.
4. Certificate of training, Certificate Program on TUBITAK ARDEB and TEYDEB Projects Trainer Training, Adana Science and Technology University Continuing Education Application and Research Center, 16.01.2017-20.01.2017.
5. Certificate of attendance, Winter School on Quantum Field Theory (QFT), Feza Gursey Theoretical Physics Institute Istanbul/Turkey, 03.02.2014-08.02.2014.
6. Certificate of attendance, TUBITAK 2237 “Project Preparation Training for Fundamental Sciences”, Mersin University, 3-6/26-27 June 2013.

TEACHING EXPERIENCE

Academic Year	Term	Course Name	Hours/week	Language
2020-2021	Fall	Biophysics I	3	English
		Fizik 1	2	Turkish
		Elementary Calculus 1	3	English
		Biophysics II	4	English
	Spring	Biophysics I	3	English
		Elementary Calculus 1	3	English
		Biophysics II	4	English
		General Physics I	4	English

REVIEWER FOR JOURNALS

International Journal [Year, Count]

1. Chemical Physics Letters [2020; 1]
2. International Journal of Quantum Chemistry [2020; 1]
3. Physica Scripta [2020; 1]
4. Canadian Journal of Chemistry [2020; 1]
5. Chemical Physics [2019; 1]
6. Physical Science International Journal [2017; 1]
7. Asian Journal of Physical and Chemical Sciences [2017; 1]
8. Advances in High Energy Physics [2016; 1]
9. Zeitschrift Für Naturforschung A - A Journal of Physical Sciences [2016; 1] [2015; 1]