

CURRICULUM VITAE

1. PERSONEL

<u>SURNAME, NAME:</u> Demir, Durmuş Ali	<u>DATE OF BIRTH:</u> March 10, 1967	
<u>MARITAL STATUS:</u> Married, one child.	<u>PLACE OF BIRTH:</u> Silifke, İçel	
Department of Physics, İzmir Institute of Technology (IZTECH), 35430, İzmir, Turkey		
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2. EDUCATION AND DEGREES

YEARS	DEGREE	INSTITUTION	DEPARTMENT
1997	Habilitation	YÖK ⁽¹⁾	Habilitation Center
1993 - 1995	Ph. D.	METU ⁽²⁾	Physics
1991 - 1993	M. Sc.	METU	Physics
1988 - 1991	B. Sc. (Minor)	METU	Physics
1987 - 1991	B. Sc. (Major)	METU	Electrical and Electronics Engineering
1986 - 1987	English Proficiency	METU	English Prep School

⁽¹⁾ Higher Education Council, Ankara

⁽²⁾ Middle East Technical University, Ankara

3. AFFILIATIONS

YEARS	POSITION	INSTITUTION
2007 - 2008	Visiting Professor	Deutsches Elektronen Synchrotron (DESY), Hamburg, Germany
2003 -	Professor	İzmir Institute of Technology (IZTECH)
2000 - 2003	Research Associate	Theoretical Physics Institute (TPI), University of Minnesota, USA
1998 - 2000	Research Associate	International Centre for Theoretical Physics (ICTP), Trieste, Italy
1996 - 1997	Research Associate	Department of Physics and Astronomy, University of Pennsylvania, USA
1991 - 1996	RA/Instructor	Department of Physics, METU

4. ADMINISTRATIVE POSITIONS

YEARS	POSITION	INSTITUTION
2011 - 2011	DEAN	Graduate School, IZTECH
2005 - 2007	ADVISOR	TÜBİTAK ⁽³⁾ -TBAG ⁽⁴⁾
2005 - 2007	DEAN	Faculty of Science, IZTECH
2004 - 2010	CHAIRPERSON	Department of Physics, IZTECH

⁽³⁾ Turkish Scientific and Technological Research Council

⁽⁴⁾ Basic Sciences Office

5. INTERNATIONAL HONORS AND AWARDS

NAME	INSTITUTION	YEAR
Friedrich Wilhelm Bessel Research Award ⁽⁵⁾	Alexander von Humboldt Foundation	2006

⁽⁵⁾ The first Turkish-citizen researcher to win it.

6. INTERNATIONAL ACADEMY MEMBERSHIP

ACADEMY	YEAR
TWAS - the World Academy of Sciences	2009

7. INTERNATIONAL INSTITUTIONS MEMBERSHIPS

INSTITUTION	YEAR
ICTP Associate Member	2012 -
CERN CMS - Compact Muon Solenoid Experiment	2005 - 2014

8. INTERNATIONAL REPRESENTATIVE DUTIES

DUTY	YEAR
CERN Strategy Council Meeting ⁽⁶⁾	2006

⁽⁶⁾ Commissioned by TÜBİTAK

9. NATIONAL HONORS AND AWARDS

NAME	INSTITUTION	YEAR
TÜBİTAK Incentive Prize	TÜBİTAK	2005
TÜBA ⁽⁷⁾ Incentive Prize	TÜBA	2004
SİMAVİ Prize (Natural Sciences)	TGC ⁽⁸⁾	2001
PARLAR Foundation Incentive Prize	METU	1997
Doctoral Fellowship	TÜBİTAK	1995

⁽⁷⁾ The Turkish Academy of Sciences

⁽⁸⁾ The Turkish Journalists' Chamber

10. MEMBERSHIP TO NATIONAL ACADEMIES

ACADEMY	YEAR
the Science Academy - Istanbul	2011

11. PRESS APPEARANCES

PRESS AGENCY	TITLE	DATE
soL.org	On the discovery of Higgs particle	July 2012
Hürriyet Gazetesi (Ege)	On the Higgs particle	Dec 2011
TRT Belgesel	On the LHC Experiments	May 2011
Anatolian Agency	Technology Transfer from CERN	Apr. 2010
National Sky TV Station	LHC Experiments	Sept. 2008
Anatolian Agency	On the receipt of Bessel Research Award	June 2007
Yeni Asır Gazetesi	On the self; On science in general; Scientific attitude in Turkish society; Education in Turkish Universities.	Mar. 2006 Sept. 2006 July 2007
Focus	Particle Physics in Turkey; Expectations from LHC.	May 2005

12. INITIATIVES FOR BASIC SCIENCE

INITIATIVE	ACTIVITIES	DATE
Foundation of ICTP - ECAR (Eurasian Center for Advanced Research)	Teaming up with Prof. N. Bulut and Prof. T. Senger (Director) towards ICTP-ECAR under the support of IZTECH Rectorate (Prof. M. Güden)	Nov. 2011-
Talks on the Particle Physics Strategy of Turkey	Turkish Atomic Energy Agency (TAEK)	Mar. 2006
	CERN Strategy Council Meeting, DESY-Zeuthen, Germany	May 2006
Talks on Research Centers (referring to Kavli Institutes)	Faculty of Science, IZTECH Colloquium	Sep. 2007
	Feza Gürsey Institute, TÜBİTAK, İstanbul	Oct. 2006
	IZTECH Student Meeting	Apr. 2006
	İzmir Physics Days I	May 2005

13.COMPLETED AND ON-GOING RESEARCH PROJECTS

TITLE	FUNDING INSTITUTION
SEARCH FOR IMPRINTS OF UNNATURALNESS AT THE LHC	TÜBİTAK (2015 - ...)
SEARCH FOR SCALAR TOP QUARK SIGNALS AT THE CERN-CMS EXPERIMENT	TAEK ⁽⁹⁾ (2012 - 2014)
PROPOSING A NEW MECHANISM FOR PULSAR KICKS	TÜBİTAK (2010 - 2012)
SEARCH FOR NEW FORCE LAWS AT THE CERN-CMS EXPERIMENT	TAEK (2009 - 2011)
CP VIOLATION AND SQUARK PRODUCTION AT CERN-CMS EXPERIMENT	TÜBİTAK (2005 - 2007)
HIGHER-CURVATURE LOW-SCALE QUANTUM GRAVITY	TÜBA ⁽¹⁰⁾ (2004 - 2007)

⁽⁹⁾ The Turkish Atomic Energy Agency

⁽¹⁰⁾ TÜBA-GEBİP Prize (Incentive Prize)

14. RESEARCH INTERESTS

FIELD	Main Focus: Naturalness Problem
High Energy Physics	<p>If the experiments at CERN have taught us anything it is that the Standard Model (SM) of elementary particles is a working theory despite the fatal <i>gauge hierarchy problem</i> plaguing it. The challenge is to solve this problem by introducing no new particles and forces beyond the known ones. (The well-known solutions, extra dimensions, supersymmetry and technicolor require new particles.) I have been working on this problem in recent years. My idea is that it is the way quantum fields gravitate that ensures naturalness. The seed is that gravity and quantum theory are fundamentally incompatible and they can be amalgamated in the flat spacetime effective field theory framework where the ultraviolet boundary morphs into the gravitational constant. The e-prints and papers below give a finer account of this emerging idea of mine.</p> <ol style="list-style-type: none">1. Naturalizing Gravity of the Quantum Fields, and the Hierarchy Problem Durmus Demir (Izmir Inst. Tech.). Mar 10, 2017. 27 pp. e-Print: arXiv:1703.05733 [hep-th] PDF2. Curvature-Restored Gauge Invariance and Ultraviolet Naturalness Durmus Ali Demir (Izmir Inst. Tech.). May 2, 2016. 4 pp. Published in Adv.High Energy Phys. 2016 (2016) 6727805 e-Print: arXiv:1605.00377 [hep-ph] PDF3. A Mechanism of Ultraviolet Naturalness Durmus Ali Demir (Izmir Inst. Tech.). Oct 19, 2015. 2 pp. e-Print: arXiv:1510.05570 [hep-ph] PDF4. Effects of Curvature-Higgs Coupling on Electroweak Fine-Tuning Durmus Ali Demir (Izmir Inst. Tech.). May 1, 2014. 4 pp. Published in Phys.Lett. B733 (2014) 237-240 e-Print: arXiv:1405.0300 [hep-ph] PDF5. Gravi-Natural Higgs and Conformal New Physics D.A. Demir (Izmir Inst. Tech.). Jul 2012. 27 pp. e-Print: arXiv:1207.4584 [hep-ph] PDF6. Gravity wraps Higgs boson Durmus A. Demir (Izmir Inst. Tech.). Oct 2011. 4 pp. e-Print: arXiv:1110.3815 [hep-ph] PDF

15.CITATION STATISTICS

Generated on 2017-04-02

96 papers found, 95 of them citeable (published or arXiv)

Citation summary results	Citeable papers	Published only
Total number of papers analyzed:	<u>95</u>	<u>75</u>
Total number of citations:	2,251	2,069
Average citations per paper:	23.7	27.6
Breakdown of papers by citations:		
Renowned papers (500+)	<u>0</u>	<u>0</u>
Famous papers (250-499)	<u>2</u>	<u>2</u>
Very well-known papers (100-249)	<u>2</u>	<u>1</u>
Well-known papers (50-99)	<u>7</u>	<u>7</u>
Known papers (10-49)	<u>39</u>	<u>37</u>
Less known papers (1-9)	<u>33</u>	<u>22</u>
Unknown papers (0)	<u>12</u>	<u>6</u>
h_{HEP} index [?]	25	24

Taken from the main archive of High Energy Physics:

http://inspirehep.net/search?ln=en&ln=en&p=f+a+demir%2C+d+and+not+c+n+cms&of=hcs&action_search=Search&sf=earliestdate&so=d&rm=&rg=25&sc=0

16.PUBLICATIONS (PAPERS/E-PRINTS)

1) [Naturalizing Gravity of the Quantum Fields, and the Hierarchy Problem.](#)

By Durmus Demir.

[arXiv:1703.05733 [hep-ph]].

2) [Curvature-Restored Gauge Invariance and Ultraviolet Naturalness.](#)

By Durmus Ali Demir.

[arXiv:1605.00377 [hep-ph]].

[10.1155/2016/6727805.](#)

Adv.High Energy Phys. 2016 (2016) 6727805.

3) [An Entropic Formulation of Tunneling Time](#)

By Durmus A. Demir and Tugrul Guner

[arXiv:1512.04338 [quant-ph]].

4) [A Mechanism of Ultraviolet Naturalness.](#)

By Durmus Ali Demir.

[arXiv:1510.05570 [hep-ph]].

5) [Tunneling in Polymer Quantization and the Quantum Zeno Effect.](#)

By Durmus Ali Demir, Ozan Sargin.

[arXiv:1409.7224 [quant-ph]].

[10.1016/j.physleta.2014.09.044.](#)

Phys.Lett. A378 (2014) 3237-3243.

6) [Riemann-Eddington theory: Incorporating matter, degravitating the cosmological constant.](#)

By Durmus A. Demir.

[arXiv:1409.2572 [gr-qc]].

[10.1103/PhysRevD.90.064017.](#)

Phys.Rev. D90 (2014) no.6, 064017.

7) [Higgsed Stueckelberg Vector and Higgs Quadratic Divergence.](#)

By Durmus Ali Demir, Canan Nurhan Karahan, Beste Korutlu.

[arXiv:1409.1033 [hep-ph]].

[10.1016/j.physletb.2014.11.038.](#)

Phys.Lett. B740 (2015) 46-50.

8) [Relativistic MOND from Modified Energetics.](#)

By Durmus Ali Demir, Canan Nurhan Karahan.

[arXiv:1408.5787 [gr-qc]].

[10.1140/epjc/s10052-014-3204-9](https://doi.org/10.1140/epjc/s10052-014-3204-9).
Eur.Phys.J. C74 (2014) no.12, 3204.

9) [Stop on Top: SUSY Parameter Regions, Fine-Tuning Constraints.](#)

By Durmuş Ali Demir, Cem Salih Ün.

[arXiv:1407.1481 [hep-ph]].

[10.1103/PhysRevD.90.095015](https://doi.org/10.1103/PhysRevD.90.095015).

Phys.Rev. D90 (2014) 095015.

10) [Effects of Curvature-Higgs Coupling on Electroweak Fine-Tuning.](#)

By Durmus Ali Demir.

[arXiv:1405.0300 [hep-ph]].

[10.1016/j.physletb.2014.05.002](https://doi.org/10.1016/j.physletb.2014.05.002).

Phys.Lett. B733 (2014) 237-240.

11) [Dark Matter from Conformal Sectors.](#)

By Durmus Ali Demir, Mariana Frank, Beste Korutlu.

[arXiv:1308.1203 [hep-ph]].

[10.1016/j.physletb.2013.12.021](https://doi.org/10.1016/j.physletb.2013.12.021).

Phys.Lett. B728 (2014) 393-399.

12) [Gravi-Natural Higgs and Conformal New Physics.](#)

By D.A. Demir.

[arXiv:1207.4584 [hep-ph]].

13) [Conformal Transformations in Metric-Affine Gravity and Ghosts.](#)

By Canan N. Karahan, Oktay Dogangun, Durmus A. Demir.

[arXiv:1204.6366 [gr-qc]].

[10.1002/andp.201200003](https://doi.org/10.1002/andp.201200003).

Annalen Phys. 524 (2012) 461-469.

14) [Scalars, Vectors and Tensors from Metric-Affine Gravity.](#)

By Canan N. Karahan, Asli Altas, Durmus A. Demir.

[arXiv:1110.5168 [gr-qc]].

[10.1007/s10714-012-1473-x](https://doi.org/10.1007/s10714-012-1473-x).

Gen.Rel.Grav. 45 (2013) 319-343.

15) [Gravity wraps Higgs boson.](#)

By Durmus A. Demir.

[arXiv:1110.3815 [hep-ph]].

16) [Einstein Equations from Riemann-only Gravitational Actions.](#)

By Durmus A. Demir, Oktay Dogangun, Tonguc Rador, Selin Soysal.

[arXiv:1105.4750 [hep-th]].

17) [Stress-Energy Connection and Cosmological Constant Problem.](#)

By Durmus A. Demir.

[arXiv:1102.2276 [hep-th]].

[10.1016/j.physletb.2011.06.018.](#)

Phys.Lett. B701 (2011) 496-502.

18) [Scalar Neutrinos at the LHC.](#)

By Durmus A. Demir, Mariana Frank, Levent Selbuz, Ismail Turan.

[arXiv:1012.5105 [hep-ph]].

[10.1103/PhysRevD.83.095001.](#)

Phys.Rev. D83 (2011) 095001.

19) [Higgs-Palatini Inflation and Unitarity.](#)

By Florian Bauer, Durmus A. Demir.

[arXiv:1012.2900 [hep-ph]].

[10.1016/j.physletb.2011.03.042.](#)

Phys.Lett. B698 (2011) 425-429.

20) [Tevatron Higgs Mass Bounds: Projecting U\(1\)' Models to LHC Domain.](#)

By Hale Sert, Elif Cincioglu, Durmus A. Demir, Levent Solmaz.

[arXiv:1005.1674 [hep-ph]].

[10.1016/j.physletb.2010.08.007.](#)

Phys.Lett. B692 (2010) 327-335.

21) [Vacuum Energy as the Origin of the Gravitational Constant.](#)

By Durmus A. Demir.

[arXiv:0910.2730 [hep-th]].

[10.1007/s10701-009-9364-z.](#)

Found.Phys. 39 (2009) 1407-1425.

22) [Phenomenological aspects of U\(1\)-prime models.](#)

By Durmus A. Demir.

[10.1063/1.3131495.](#)

AIP Conf.Proc. 1115 (2009) 186-191.

23) [Sneutrino Dark Matter: Symmetry Protection and Cosmic Ray Anomalies.](#)

By Durmus A. Demir, Lisa L. Everett, Mariana Frank, Levent Selbuz, Ismail Turan.

[arXiv:0906.3540 [hep-ph]].

[10.1103/PhysRevD.81.035019.](#)

Phys.Rev. D81 (2010) 035019.

- 24) [General Tensor Lagrangians from Gravitational Higgs Mechanism.](#)
By Durmus A. Demir, N.K. Pak.
[arXiv:0904.0089 [hep-th]].
[10.1088/0264-9381/26/10/105018.](#)
Class.Quant.Grav. 26 (2009) 105018.
- 25) [Doubly Charged Higgsinos at Tevatron.](#)
By Durmus A. Demir, Mariana Frank, Dilip K. Ghosh, Katri Huitu, Santosh K. Rai, Ismail Turan.
[arXiv:0903.3955 [hep-ph]].
[10.1103/PhysRevD.79.095006.](#)
Phys.Rev. D79 (2009) 095006.
- 26) [Search for Gauge Extensions of the MSSM at the LHC.](#)
By Ahmed Ali, Durmus A. Demir, Mariana Frank, Ismail Turan.
[arXiv:0902.3826 [hep-ph]].
[10.1103/PhysRevD.79.095001.](#)
Phys.Rev. D79 (2009) 095001.
- 27) [The LHC signatures of the extended gauge structures in supersymmetry.](#)
By Ahmed Ali, Durmus A. Demir, Mariana Frank, Ismail Turan.
PoS EPS-HEP2009 (2009) 225.
- 28) [Signatures for doubly-charged Higgsinos at colliders.](#)
By Durmus A. Demir, Mariana Frank, Katri Huitu, Santosh Kumar Rai, Ismail Turan.
[arXiv:0810.5265 [hep-ph]].
[10.1063/1.3051945.](#)
AIP Conf.Proc. 1078 (2009) 312-314.
- 29) [Signals of Doubly-Charged Higgsinos at the CERN Large Hadron Collider.](#)
By Durmus A. Demir, Mariana Frank, Katri Huitu, Santosh Kumar Rai, Ismail Turan.
[arXiv:0805.4202 [hep-ph]].
[10.1103/PhysRevD.78.035013.](#)
Phys.Rev. D78 (2008) 035013.
- 30) [Inflation with Non-Minimal Coupling: Metric versus Palatini Formulations.](#)
By Florian Bauer, Durmus A. Demir.
[arXiv:0803.2664 [hep-ph]].

[10.1016/j.physletb.2008.06.014](https://arxiv.org/abs/10.1016/j.physletb.2008.06.014).

Phys.Lett. B665 (2008) 222-226.

31) [Doubly charged Higgsinos at LHC](#).

By Durmuş A. Demir, Mariana Frank, Katri Huitu, Santosh Kumar Rai, Ismail Turan.

PoS 2008LHC (2008) 007.

32) [Dirac Neutrino Masses from Generalized Supersymmetry Breaking](#).

By Durmus A. Demir, Lisa L. Everett, Paul Langacker.

[arXiv:0712.1341 [hep-ph]].

[10.1103/PhysRevLett.100.091804](https://arxiv.org/abs/10.1103/PhysRevLett.100.091804).

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33) [Squark pair production in the MSSM with explicit CP violation](#).

By Ahmet T. Alan, Kerem Cankocak, Durmus A. Demir.

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[10.1103/PhysRevD.76.119903](https://arxiv.org/abs/10.1103/PhysRevD.76.119903), [10.1103/PhysRevD.75.095002](https://arxiv.org/abs/10.1103/PhysRevD.75.095002).

Phys.Rev. D75 (2007) 095002, Erratum: Phys.Rev. D76 (2007) 119903.

34) [On the Sources of CP-violation Contributing to the Electric Dipole Moments](#).

By D.A. Demir, Y. Farzan.

[hep-ph/0610181].

eConf C0605151 (2006) 0005.

35) [Introduction to Higgs sector: Theory and phenomenology](#).

By Durmus A. Demir.

[10.1007/978-3-540-73621-9_2](https://arxiv.org/abs/10.1007/978-3-540-73621-9_2).

Springer Proc.Phys. 118 (2008) 27-40.

36) [Neutralino dark matter in the left-right supersymmetric model](#).

By Durmus A. Demir, Mariana Frank, Ismail Turan.

[hep-ph/0604168].

[10.1103/PhysRevD.73.115001](https://arxiv.org/abs/10.1103/PhysRevD.73.115001).

Phys.Rev. D73 (2006) 115001.

37) [Generalized modified gravity in large extra dimensions](#).

By Onder Aslan, Durmus A. Demir.

[hep-ph/0603051].

[10.1016/j.physletb.2006.03.010](https://arxiv.org/abs/10.1016/j.physletb.2006.03.010).

Phys.Lett. B635 (2006) 343-349.

- 38) [Non-Gravitating Scalars and Spacetime Compactification.](#)
By Durmus A. Demir, Beyhan Pulice.
[hep-th/0605071].
[10.1016/j.physletb.2006.05.015.](#)
Phys.Lett. B638 (2006) 1-7.
- 39) [Correlating mu parameter and right-handed neutrino masses in N=1 supergravity.](#)
By D.A. Demir, Y. Farzan.
[hep-ph/0601096].
[10.1088/1126-6708/2006/03/010.](#)
JHEP 0603 (2006) 010.
- 40) [LEP indications for two light Higgs bosons and U\(1\)-prime model.](#)
By Durmus A. Demir, Levent Solmaz, Saime Solmaz.
[hep-ph/0512134].
[10.1103/PhysRevD.73.016001.](#)
Phys.Rev. D73 (2006) 016001.
- 41) [Higher curvature quantum gravity and large extra dimensions.](#)
By Durmus A. Demir, Sukru Hanif Tanyildizi.
[hep-ph/0512078].
[10.1016/j.physletb.2005.12.014.](#)
Phys.Lett. B633 (2006) 368-374.
- 42) [Can measurements of electric dipole moments determine the seesaw parameters?.](#)
By Durmus A. Demir, Yasaman Farzan.
[hep-ph/0508236].
[10.1088/1126-6708/2005/10/068.](#)
JHEP 0510 (2005) 068.
- 43) [The Minimal U\(1\)' extension of the MSSM.](#)
By Durmus A. Demir, Gordon L. Kane, Ting T. Wang.
[hep-ph/0503290].
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Phys.Rev. D72 (2005) 015012.
- 44) [The Discovery potential of a Super B Factory. Proceedings, SLAC Workshops, Stanford, USA, 2003.](#)
By Joanne L. Hewett et al..
[hep-ph/0503261].

45) [Effects of flavor violation on split supersymmetry.](#)

By Durmus A. Demir.

[hep-ph/0410056].

46) [Renormalization group invariants in the MSSM and its extensions.](#)

By Durmus A. Demir.

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47) [Higgs quark couplings in SUSY with CP and flavor violations.](#)

By Durmus A. Demir.

[hep-ph/0402074].

48) [Nonlinearly realized local scale invariance: Gravity and matter.](#)

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49) [Electric dipole moments in the MSSM at large tan beta.](#)

By Durmus A. Demir, Oleg Lebedev, Keith A. Olive, Maxim Pospelov, Adam Ritz.

[hep-ph/0311314].

[10.1016/j.nuclphysb.2003.12.026](https://arxiv.org/abs/10.1016/j.nuclphysb.2003.12.026).

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50) [CP violation in supersymmetric U\(1\) prime models.](#)

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51) [Higgs boson couplings to quarks with supersymmetric CP and flavor violations.](#)

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52) [Preserving the lepton asymmetry in the brane world.](#)

By Durmus A. Demir, Tony Gherghetta, Keith A. Olive.

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53) [Hadronic EDMs, the Weinberg operator, and light gluinos.](#)

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54) [The Forward backward asymmetry of \$B \rightarrow \(\pi, K\) \ell^+ \ell^-\$: Supersymmetry at work.](#)

By Durmus A. Demir, Keith A. Olive, M.B. Voloshin.

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Phys.Rev. D66 (2002) 034015.

55) [Flavordynamics with conformal matter and gauge theories on compact hyperbolic manifolds in extra dimensions.](#)

By Durmus A. Demir, M. Shifman.

[hep-ph/0112090].

[10.1103/PhysRevD.65.104002](https://doi.org/10.1103/PhysRevD.65.104002).

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56) [Supersymmetric CP violation: Higgs and flavor.](#)

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Nucl.Phys.Proc.Suppl. 101 (2001) 431-435.

57) [\$B \rightarrow X\(s\) \gamma\$ in supersymmetry with explicit CP violation.](#)

By Durmus A. Demir, Keith A. Olive.

[hep-ph/0107329].

[10.1103/PhysRevD.65.034007](https://doi.org/10.1103/PhysRevD.65.034007).

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58) [Realistic gluino axion model consistent with supersymmetry breaking at the TeV scale.](#)

By Durmus A. Demir, Ernest Ma.

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59) [The B quark EDM in SUSY and CP odd bottomonium formation.](#)

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60) [Gluino axion](#).
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61) [Stable Q balls from extra dimensions](#).
By Durmus A. Demir.
[hep-ph/0006344].
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62) [Neutrino masses and the gluino axion model](#).
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63) [Relaxation of the dynamical gluino phase and unambiguous electric dipole moments](#).
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