



## Danial Saadatmand

### Assistant Professor

Faculty : Science

Departments : Physics

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## Education

- ✓ MS, Physics, Ferdowsi University of Mashhad - 2010
- ✓ PhD, Physics, Ferdowsi University of Mashhad - 2015

## Courses

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|-----------------------------------------|---------------------------|
| 1. General Physics1                     | 2. General Physics2       |
| 3. Analytical Mechanics1                | 4. Physics Laboratory 1   |
| 5. Introduction to Elementary Particles | 6. Waves and vibrations   |
| 7. Nuclear and Particle Physics         | 8. Quantum Field Theory 1 |

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## Journals Papers

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### 2018

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#### 1. Resonant interaction of 4 kink with PT -symmetric perturbation with spatially periodic gain/loss coefficient

Danial Saadatmand, d b, p k, k z, s d

Communications in Nonlinear Science and Numerical Simulation Volume: (56) 62 - 76

#### 2. Electronic structure of graphene and BNsupported phosphorene

a d, s u, a k, Danial Saadatmand, s d, k z, e k

PHYSICA B-CONDENSED MATTER Volume: (534) 63 - 67

#### 3. Extreme values of elastic strain and energy in sine-Gordon multi-kink collisions

a moradi, , Danial Saadatmand,

EUROPEAN PHYSICAL JOURNAL B Volume: (91) 1 - 8

#### 4. High energy density spots and production of kink-antikink pairs in particle collisions

, Danial Saadatmand, s d, k j

WAVE MOTION Volume: (78) 54 - 59

#### 5. Scattering of the double sine-Gordon kinks

Vakhid A. Gani, Aliakbar Moradi Marjaneh, Alidad Askari, Ekaterina Belendryasova, Danial Saadatmand

EUROPEAN PHYSICAL JOURNAL C Volume: (78) 1 - 12

#### 6. Discrete breathers assist energy transfer to ac-driven nonlinear chains

Danial Saadatmand, d x, v k, a k, a s, s d

PHYSICAL REVIEW E Volume: (97) 1 - 12

#### 7. Graphene nanoribbon as an elastic damper

Iman Evazzade, Ivan Lobzenko, Danial Saadatmand, elena Korznikova, k z, b l, s d

NANOTECHNOLOGY Volume: (29) 1 - 8

#### 8. Mass transfer in the Frenkel-Kontorova chain initiated by molecule impact

A. Moradi Marjaneh, Danial Saadatmand, I. Evazzade, R. I. Babicheva, S. V. Dmitriev, E. A. Korznikov

PHYSICAL REVIEW E Volume: (98) 1 - 9

#### 9. Effects of substrate and environmental adsorbates on the electronic properties and structural stability of antimonene

Andrey A. Kistanov, Artur R. Davletshin, Svetlana V. Ustuzhanina, Iman Evazzade, Danial Saadatmand,

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JOURNAL OF MATERIALS SCIENCE Volume: (53) 15559 - 15568

10. Collective coordinate system in (2 1) dimensions: CP1 lumps-potential interaction

, Danial Saadatmand, k javidan

Waves in Random and Complex Media Volume: (29) 368 - 381

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## 2017

11. High energy density in the collision of N kinks in the  $\phi^4$  model

, Danial Saadatmand, k z, s d,

Communications in Nonlinear Science and Numerical Simulation Volume: (49) 30 - 38

12. Multi-kink collisions in the  $\phi^6$  model

a m, v g, Danial Saadatmand, s d, k j

JOURNAL OF HIGH ENERGY PHYSICS Volume: ( ) 1 - 21

13. Crossover from ballistic to normal heat transport in the 4 lattice: If nonconservation of momentum is the reason, what is the mechanism

Daxing Xiong, Danial Saadatmand, Sergey V. Dmitriev

PHYSICAL REVIEW E Volume: (96) 1 - 10

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## 2015

14. High energy density in multi-soliton collisions

Danial Saadatmand, ,

PHYSICAL REVIEW D Volume: (92) 1 - 11

15. Kink scattering from a parity-time-symmetric defect in the  $\phi^4$  model

Danial Saadatmand, , , , ,

Communications in Nonlinear Science and Numerical Simulation Volume: (29) 267 - 282

16. Effect of the  $\phi^4$  kinks internal mode at scattering on a PT-symmetric defect

Danial Saadatmand, , , , ,

JETP LETTERS Volume: (101) 497 - 502

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## 2014

17. Interaction of sine-Gordon kinks and breathers with a parity-time-symmetric defect

Danial Saadatmand, , ,

PHYSICAL REVIEW E Volume: (90) 1-052902 - 10-052902

18. Dynamics of coupled field solitons A collective coordinate approach

Danial Saadatmand, ,

PRAMANA-JOURNAL OF PHYSICS Volume: (83) 505 - 517

## 2013

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### [19. Collective-Coordinate Analysis of Inhomogeneous Nonlinear KleinGordon Field Theory](#)

Danial Saadatmand,

BRAZILIAN JOURNAL OF PHYSICS Volume: (43) 48 - 56

## 2012

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### [20. Solitonpotential interaction in the nonlinear KleinGordon model](#)

Danial Saadatmand,

PHYSICA SCRIPTA Volume: (85) 1 - 6

## 2011

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### [21. Effect of high relativistic ions on ion acoustic solitons in electron-ion-positron plasmas with nonthermal electrons and thermal positrons](#)

, Danial Saadatmand

ASTROPHYSICS AND SPACE SCIENCE Volume: (333) 471 - 475