

## CURRICULUM VITAE

**FIRST NAME:** *Davran;*

**SURNAME:** *Otajanov;*

**Date of birth:** *January 3, 1975;*

**Place of birth:** *Khorezm Province, Uzbekistan;*

**Nationality:** *Uzbekistan;*

**Marital status:** *Married;*



### **Affiliation and official address:**

Laboratory of Scientific Researches, Turin Polytechnic University in Tashkent,  
17 Niyazov Street (Kichik Halqa Yuli), Almazar District, 100095 Tashkent, Uzbekistan

### **Languages:**

Uzbek (Native), English (Fluent), Russian (Fluent), Turkish (Good), Japanese (Good)

### **Education: (*degrees, dates, universities*)**

M.S., Physics (1996),

Physics Department, National University of Uzbekistan, Tashkent, Uzbekistan

M.S., Seismology (2006),

International Institute of Seismology and Earthquake Engineering, Tsukuba, Japan

Ph.D., Physics and Mathematics (2009),

Heat Physics Department of the Uzbek Academy of Sciences, Tashkent, Uzbekistan

**Degree Obtained:** PhD in Physics and Mathematics

### **Career/Employment (*employers, positions and dates*)**

2007 – 2009, Research associate at Heat Physics Department of the Uzbek Academy of Sciences, Tashkent, Uzbekistan

2009 – Present, Head of the Laboratory of Scientific Researches at Turin Polytechnic University in Tashkent, Tashkent, Uzbekistan

### **Research interests:**

- Complex system physics;
- Non-linear dynamics of mesoscopic and nanoscale systems;
- Classical and quantum transport in nanostructures;
- Quantum networks;
- Heat transport and thermoelectric effect in confined nanoscale systems;

### **Referees:**

1. Prof. Davronbek MATRASULOV, Turin Polytechnic University in Tashkent, Uzbekistan  
E-mail: [dmatrasulov@gmail.com](mailto:dmatrasulov@gmail.com) ; [d.matrasulov@polito.uz](mailto:d.matrasulov@polito.uz) ;
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3. Prof. Andreas WIRZBA, Institute for Nuclear Physics, Research Center of Juelich, Germany  
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4. Prof. Faqir KHANNA, Physics Department, University of Alberta, Canada  
Email: [fkhanna@ualberta.ca](mailto:fkhanna@ualberta.ca) .

### **Professional Honours, Awards and Fellowships:**

ITEC/SCAAP Fellowship (2001)  
ICTP Fellowship (2003)  
JICA Fellowship (2005-2006)  
DAAD Fellowship (2011)

### **Membership and activities in Professional Societies, Associations:**

Member of the Uzbekistan Physical Society (Since 2009)

### **Other professional activities (such as workshops, seminars and consultations):**

Co-chair of the International Workshop on “Complexity in earthquake dynamics: from nonlinearity to earthquake prediction and seismic stability”, 25-26 January, 2012, Tashkent, Uzbekistan. (<http://www.seismo2012.sci.uz/index.shtml> )

### **Computer Skills:**

Fortran, C++, Unix, MathCAD.

### **Selected publications:**

1. D.U.Matrasulov and D.M.Otajanov. Relativistic Kepler map. **Journal of Physics A.**, 2001, Vol. 34, PP. 3477-3482.
2. D.U.Matrasulov and D.M.Otajanov. Chaos in heavy quarkonium. **Uzbek Journal of Physics.** 2001, Vol. 3, No 1-2, PP.108-111.
3. D.U.Matrasulov, D.M.Otajanov and Sh.Ataev. Kepler map for the relativistic atoms. **Uzbek Journal of Physics.** 2002, Vol. 4, No. 1, PP. 15-19.
4. D.U.Matrasulov, F.J.Juraev, D.M.Otajanov. Chaos in the relativistic periodically driven pendulum. **Uzbek Journal of Physics.** 2002, Vol. 4, No 5-6, PP.302-306.
5. D.U.Matrasulov, F.C.Khanna and D.M.Otajanov. Chaotization of the periodically driven quarkonia. **Uzbek Journal of Physics.** 2003, Vol. 5, No. 2-3, PP. 181-189.
6. D.M.Otajanov, F.C.Khanna and D.U.Matrasulov. Chaotization of the periodically driven quarkonia. **In Non-Linear Dynamics and Fundamental Interactions**, (Eds. F.Khanna and D.Matrasulov), P. 355-340. Springer (2006).
7. D.U.Matrasulov, Kh.Yu.Rakhimov, F.Khoshimova and D.M.Otajanov. Classic and Quantum dynamics of the periodically driven harmonic oscillator. **Uzbek Journal of Physics.** 2008, Vol. 10, No 3, PP. 157-162.

8. T.Ruzmetov and D.M.Otajanov. Chaos and nonstabilities in the cavity-QED: the role of the finite temperature effects. **Uzbek Journal of Physics**. 2008, Vol. 10, No 4-5, PP. 237-242.
9. D.U.Matrasulov, P.K.Khabibullaev, F.C.Khanna and D.M.Otajanov. Periodically driven dynamics of a particle moving in the field of Coulomb plus confining potential. **Physica Scripta**, Vol. 78, (2008) 065003
10. D.U.Matrasulov, T.Ruzmetov, D.M.Otajanov, P.K.Khabibullaev, A.A.Saidov, F.C.Khanna. Finite-temperature nonlinear dynamics in cavity QED: A Thermofield Dynamics Approach. **Physics Letters A.**, Vol. 373, (2009) 238-242
11. D.Otajanov and B.Shibazaki, Modeling earthquake cycles at thrust zones in Central Asia. **In Proceedings of the Workshop on “Complexity in earthquake dynamics: from nonlinearity to earthquake prediction and seismic stability”**, (Eds. D.Otajanov and D.Usmanova), P. 113-130. Tashkent (2012).