DIMITAR OUZOUNOV

Dept. of Physics, Computational Science and Engineering, Schmid College of Science & Technology, School of Earth and Environmental Science Chapman University, One University Drive Orange, CA 92866, USA E-mail: ouzounov@chapman.edu

PROFESSIONAL EXPERIENCE

2009-present Associate Professor Chapman University, Orange, CA, USA
2008-present Senior Scientist Applied Sciences, NASA/ Goddard SFC/SSAI, Greenbelt, MD, USA
2007-2009 Research Professor, George Mason University, Fairfax, VA, USA
2004-2008 Principal Investigator, Geodynamics, NASA Goddard SFC/SSAI, Greenbelt, MD, USA
1999-2004 Staff Scientist, GES DAAC, NASA/ Goddard SFC/SSAI, Greenbelt, MD, USA
1990-1998 Research Scientist, Geophysical Institute, Academy & Sciences, Sofia. Bulgaria

EDUCATION

Ph.D. Geophysics, The Schmidt Institute of Physics of the Earth, Russia. June 1990. M. Sc. Applied Mathematics & Informatics Technical University, Bulgaria. July 1985. B. Sc. Applied Geophysics, University of Mining and Geology, Bulgaria, June 1983.

TEACHING EXPERIENCE

- 2008-2012 Introduction Space observations in Natural Hazards, Chapman University, CA
- 2007-2012 Science Advisor for NASA Earth Sciences DEVELOP program
- 2007 Science Advisor, Summer MSc school, International Space University, China
- 2006-2007 Science Adviser, George Mason University, VA

KEYNOTE SPEAKER

- 2012 International school of Physics, Erice, Italy
- 2012 Kansai Science Forum, Osaka, Japan
- 2011 NASA Workshop: Evaluating Methods of Earthquake Forecasting, USC, CA
- 2011 NRL Workshop on Remote Sensing Techniques Warning & Response, CA
- 2011 European Union/F7 "Pre Earthquake" meeting, University of Basilicata, Potenza, Italy
- 2010 Distinguished Lecturer: Early Warnings Using Space Technology, CEA, Beijing, China
- 2007 Distinguished Lecturer, International Space University, Summer, Beijing, China
- 2006 Invited Lecturer: LAIC model, Chiba University, Japan
- 2005 Invited Lecturer: EM Phenomena Associated with Earthquakes, NCU, Taiwan
- 2004 Invited Lecturer, 36th Annual Precise Time (PTTI) Meeting, Washington DC

ACTIVITIES

- Member of the American Geophysical Union (AGU); European Geophysical Union (EGU); Seismological Society of America (SSA), The International Society For Optical Engineering (SPIE)
- Leading convener for AGU Fall Meeting (2003-2012) and WPGM Meetings (2005-2012);
- Reviewed papers for J. Geophys. Res., Geophys. Res. Lett. Springer, Elsevier.
- Guest Editor on Natural Hazards and Predictability for Journal Asian Earths Sciences, International Journal of Geophysics and Research in Geophysics;
- Interviewed by Science News, Technological Review, WSJ, ABC, New Scientists, Discovery Channel News, etc.
- Fellow of Natural Disaster Reduction Committee of International Aeronautical Federation (Paris) and IUGG WG on Electromagnetic Studies of Earthquakes and Volcanoes (EMSEV);

HONORS/AWARDS

- Top-50 most cited article of published in Tectonophysics, Elsevier, 2006 2011
- NASA Group Achievement Honor Award, member of GSFC Applied Sciences, 2008
- NASA Group Achievement Award as a member of EOS DISC Centers Support, 2006
- Top-25 most cited article in Earth and Planetary Science, ASR, Elsevier, 2005
- NASA Goddard Space Flight Center Achievement Award GES DAAC, 2002
- NASA GSFC Achievement Award, member of MODIS Mission Support Team, 2001
- Raytheon Team award, member of DAAC MODIS Mission Support Team, 2000

SELECTED PUBLICATIONS

(h-index:8; i10-index:8; Citation on Google Scholar http://scholar.google.com/citations?user=OjOlDkYAAAAJ&hl=en)

Ouzounov D. S.Pulinets, K.Hattori, M, Kafatos, P.Taylor (2011) "Atmospheric Signals Associated with Major Earthquakes. A Multi-Sensor Approach, in the book "Frontier of Earthquake short-term prediction study", M Hayakawa, (Ed), Japan, 510-531 Ouzounov D., S. Pulinets, A. Romanov, A. Romanov Jr., K. Tsybulya, D.Davydenko, M. Kafatos and P. Taylor (2011) Atmosphere-Ionosphere Response to the M9 Tohoku Earthquake Reviled by Joined Satellite and Ground Observations, *Earthquake Science*, 24, 557–564 Pulinets S. and D.Ouzounov (2011) Lithosphere-Atmosphere-Ionosphere Coupling (LAIC) model - an unified concept for earthquake precursors validation, *Journal of Asian Earth Sciences*, 41, 4-5, 371-382

Laverov N., Pulinets S., **Ouzounov** D (2011) Use of thermal ionization effect for remote diagnostics of radioactive contamination of the environment. *Doklady Earth Sciences*, Vol. 441, Part 1, 1560–1563

Ouzounov D., D. Liu, C. Kang, G.Cervone, M. Kafatos, P. Taylor, (2007) Outgoing Long Wave Radiation Variability from IR Satellite Data Prior to Major Earthquakes, *Tectonophysics*, 431, 1-4, 211-220

Pulinets S., D. **Ouzounov**, A. Karelin, K. Boyarchuk, L. Pokhmelnykh, (2006). The Physical Nature of Thermal Anomalies Observed Before Strong Earthquakes, *Physics and Chemistry of the Earth*, 31, 143-153

Parrot M. and D.**Ouzounov** (2006), Surveying the Earth's Electromagnetic Environment From Space, *EOS*, *Transactions of American Geophysical Union*, 87, 52, 595

Kilifarska, N. A. and **Ouzounov**, D. (2001) Theoretical modeling of FoF2 and HmF2 ionospheric parameters during a strong magnetic disturbance, *J. Geophys. Res.*, 106, No. A12, 30,415-30,427

<u>IN THE NEWS.</u>

Earth Sky. March 2012: Will Japan's big quake in 2011 lead to more earthquake predictability? Berliner Zeitung, Jan 2012, Help from above

Technology Review, May 2011, <u>Atmosphere Above Japan Heated Rapidly Before M9 Earthquake</u> Physics World, May, 2011, <u>Tohoku quake coincided with sky'anomalies'</u>

Live Science, May 2011, Japan Earthquake Was 'In the Air' Days Before, Scientist Claims

CS Monitor, May 2011, <u>Japan earthquake: Big, shallow quakes have a warning signal, say researchers</u> KQED News, May 2011, <u>Study Suggests Atmospheric Changes Signaled Japan's Monster Quake</u>

VOA news, June 2011, Scientists Exploring Quake Warning Signals

EARTH, April 2009, Earthquake prediction: Gone and back again

Discovery News, June 2008, Satellite network to predict earthquakes

NASA Science news, 2003, Anticipating Earthquakes

New Scientist, Dec 2001, Temperature raises hint at earthquake prediction