SIMANCHAL PADHY
CSIR-NGRI, HYDERABAD, INDIA

http://scholar.google.com/citations?hl=en&user=L7IVvncAAAAJ

NGRI RESEARCH GROUP:

Seismological Observatory

FIELD OF SPECIALIZATION:

Seismic wave propagation and scattering.

EDUCATION:

2005	Ph.D. in Seismology, Osmania University, India
1998	M.Sc.Tech in Applied Geophysics, Indian School of Mines, Dhanbad
1994	M.Sc. in Electronics, Berhampur University, India
1992	B.Sc. in Physics, Berhampur University, India

PROFESSIONAL EXPERIENCE:

11/99- **Scientist**, National Geophysical Research Institute, Hyderabad, India

VISITING POSITIONS:

06/04-09/05	DAAD Research Fellow, Leipzig University, Germany
08/05	Visiting Scientist, Universite Montpellier II, France
12/07-02/08	Visiting Scientist, Tohoku University, Japan
06/10-	JSPS Postdoctoral Fellow, The University of Tokyo, Japan

TEACHING EXPERIENCE:

Physics of Seismic Sources

SERVICE:

Member, Indian Antarctica Expedition, December 2000 – March 2001
Member, American Geophysical Union (AGU)
Member, Seismological Society of Japan
Member, Japan Geoscience Union
Reviewer, Bulletin of Seismological Society of America, Journal of Seismology, Computers and Geosciences, Journal of Asian Earth Sciences, among others.

AWARDS AND HONORS:

Recipient of CSIR Young Scientist Award from Govt. of India for the Year 2008

PH.D. ADVISOR:

Harsh K. Gupta, National Geophysical Research Institute, Hyderabad, India

SCIENTISTS WITH WHOM I HAVE COLLABORATED (OUTSIDE NGRI):

Current

T. Furumura, T. Maeda - The University of Tokyo

Past

S. Crampin, Edinburg University

M. Korn, U. Wegler, Leipzig University

D. Zhao, Tohoku University

PUBLICATIONS

Peer-reviewed Journal Publications:

International Journals

2012

1. **Simanchal Padhy**, S. Takemura, T. Takemoto, T. Maeda and T. Furumura, 2011. Spatial and temporal variations in coda attenuation associated with the 2011 Off the Pacific Coast of Tohoku, Japan (Mw 9) Earthquake. Bulletin Seismological Society America (Special Issue for the 2011 Tohoku-Oki earthquake) (Under Review).

2011

1. **Simanchal Padhy**, Subhadra, N. and Kayal, J. R., 2011a. Frequency dependent attenuation of body and coda waves in the Andaman Sea basin, Bulletin Seismological Society of America, 101, 109-125.
2. **Simanchal Padhy,** Mishra, O. P., Zhao, D., and Wei Wei, 2011b. Crustal heterogeneity in the 2007 Noto-Hanto earthquake area and its geodynamical implications, Tectonophysics, **509**, 55-68.
3. Takashi Furumura, Shunsuke Takemura, Shinako Noguchi, Teito Takemoto, Takuto Maeda, Kazuhisa Iwai, and **Simanchal Padhy**, 2011. Strong ground motions from the 2011 off-the Pacific-Coast-of-Tohoku, Japan (Mw=9.0) earthquake obtained from a dense nationwide seismic network, Recent Landslides.

2010

1. **Simanchal Padhy** and Subhadra, N., 2010a. Frequency dependent attenuation of P- and S-waves in the northeast India, Geophys. J. Int. 183, 1052-1060.
2. **Simanchal Padhy** and Subhadra, N., 2010b. Attenuation of high-frequency seismic waves in northeast India, Geophys. J. Int., **181**, 453-467.

2009

1. **Simanchal Padhy**, 2009*a*. Inversion of seismogram envelopes using a multiple isotropic scattering model in Garhwal Himalaya. Bulletin of Seismological Society of America., 99, 727-740.

2. **Simanchal Padhy**, 2009*b*. Characteristics of body wave attenuation in the Bhuj crust. Bulletin of Seismological Society of America. 99, 3300-3313.

2007

1. **Simanchal Padhy**, Wegler, U., and Korn, M., 2007. Seismogram Envelope Inversion using a multiple isotropic scattering model - Application to aftershocks of the 2001, Bhuj earthquake. Bulletin of Seismological Society of America. 97, 222-233.

2006

1. **Simanchal Padhy**, and Crampin, S., 2006. High pore fluid pressures at Bhuj inferred from 90°–flips in shear wave polarizations. Geophysical J. Int., 164, 370-376.

2005

1. **Simanchal Padhy,** 2005. A Scattering model for seismic attenuation and its global applications. Physics Earth Planetary Inter. 148, 1-12.

2004

1. **Simanchal Padhy**, 2004. Intermittent Criticality on regional scale in Bhuj, Geophysical J. Int., 158, 676-680.

2001

1. Mandal, P., **Padhy, S**., Rastogi, B. K., Satyanarayana, H. V. S., Kousalya, M., Raghavan, R., and Srinivasan, A., 2001. Aftershock activity and frequency dependent low coda-Qc in the epicentral region of the 1999 Chamoli earthquake of *M*w 6.4, Pure and Applied Geophys.,158, 1719-1735.

Indian Journals

2005

1. **Simanchal Padhy**, 2005. Rescaled range fractal analysis of a seismogram for identification of signals from an earthquake. Current Science, 87, 637-641.

2008

1. Subhadra, N., **Padhy, S**., Sesunarayana, T., and Vijayaraghavan, R., 2008. Synthesis of expected ground motion using Semi-empirical Green's Function approach and its comparison with observed accelerations in Garhwal Himalaya, Indian Minerals (Special Issue), 61 (3-4), 201-212.

ABSTRACTS:

2011

1. **Simanchal Padhy**, Takashi Furumura and Takuto Maeda, 2011. Lateral structural change of the subducting Pacific plate beneath Japan inferred from high-frequency body wave analysis, AGU Fall Meeting 2011, San Francisco, 5-9 December.

2. **Simanchal Padhy**, Takashi Furumura and Takuto Maeda, 2011. Waveform effects of the thinning or tearing of the subducting Pacific slab beneath Japan, Japan Geoscience Union Meeting, May 22-27, 2011.

3. **Simanchal Padhy**, Takuto Maeda and Takashi Furumura, 2011. Lateral structure of the subducting Pacific plate beneath Japan inferred from high-frequency body wave analysis, International workshop on Passive Imaging in Wave Physics: from Seismology to Ultrasound, Corsica, France, May 09-13, 2011.

4. **Simanchal Padhy**, Shunsuke Takamura, Teito Takemoto, Takuto Maeda and Takashi Furumura, 2011. Temporal changes in coda attenuation associated with the 2011 Off the Pacific Coast of Tohoku Earthquake, AOGS, Taipei, August 08-12, 2011.

5. **Simanchal Padhy**, Takuto Maeda and Takashi Furumura, 2011. Lateral structure of the subducting Pacific plate beneath Japan inferred from high-frequency body wave analysis, AOGS, Taipei, August 08-12, 2011.

2010

1. **Simanchal Padhy**, 2010. Scattering and anelastic attenuation of seismic energy in Northeast India using the multiple lapse time window analysis, Abstract S43B-2073 presented at 2010 Fall Meeting, AGU, San Francisco, California, 13-17 Dec.

2. **Simanchal Padhy** and N. Subhadra, 2010. Attenuation characteristics of high-frequency seismic waves in Northeast India, 7th ACES International Workshop, Otaru, October 3-8, 2010.

2006

1. **Simanchal Padhy** and Stuart Crampin, Characteristics of shear wave polarizations in Garhwal Himalaya. 12th International Workshop on Seismic Anisotropy (12IWSA), 22-27 October, 2006, Beijing, China**.**

2005

1. **Simanchal Padhy,** Wegler, U., and Korn, M. Scattering of seismic waves in the crust beneath Bhuj, NW India, Workshop meeting on seismic waves in laterally inhomogeneous media VI, (*SWLIM – VI*), June 20-25, 2005. Hruba Skala, Czech Republic.

2004

1. **Simanchal Padhy,** Scaling of displacement spectra of Bhuj aftershocks, AOGS, 2004, Singapore, 57-ONL-A645.

2003

1. **Simanchal Padhy,** Spectral decay parameter, *kappa* in Bhuj, *IUGG, 2003, Sapporo, Japan* [SS01/01P/A09-012].

SUMMARY OF STUDENT ACTIVITIES:

Current Students **Ph.D - 1**

Past Students **Masters - 5**