Sondervortrag

EINLADUNG ZUM GASTVORTRAG
im Rahmen des Forschungsseminars (Doktoratsstudium) WS 2010/11

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INSTITUT FÜR GEOGRAPHIE UND REGIONALFORSCHUNG
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EARLY WARNING SYSTEMS FOR NATURAL HAZARDS - THE FUNDAMENTALS

Natural hazards can be broadly grouped into three types: (A) Permanent, (B) Evanescent and (C) Episodic. A dominant feature in almost all types of geophysical data records is the so-called clustering effect. One of the biggest problems with observed data is the aliasing phenomenon which can contaminate the data hopelessly. This can be avoided by properly choosing the sampling interval when the data is collected. Another major problem with numerical (computer) models is the confusion between precision versus accuracy. Most models may be precise, but may not be accurate.

Whereas science at best can only provide probabilistic forecasts, for various natural hazards, the managers and public have difficulty dealing with these and they prefer deterministic predictions, which are difficult to provide. It will be demonstrated that the use of Fuzzy Mathematics will improve the predictions considerably.

Tad. S. Murty studied Meteorology & Oceanography in India and later at the University of Chicago in USA. He held various positions during his career: Senior Research Scientist with the Canadian Oceanographic Service, Director of the Australian National Tidal facility, Professor of Earth Sciences in Flinders University in Adelaide, Director of the Pacific Sea level & Climate monitoring Project for the south Pacific Islands. Upon his retirement, he joined the Civil Engineering Department of the University of Ottawa as an Adjunct (Emeritus) Professor. Tad specialized in the mathematical modelling of natural hazards under climate change. He has done his share of all the usual things one would expect from a scientist and university professor. He received about a couple of dozen awards.

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