

Integral Risk Management in Engineering**5. Oktober 2009****Typhoon Risk Modelling***Monday, 5. Oktober 2009**17:15, HIL E6**ETH Zürich, Hönggerberg, 8093 Zürich**Mathias Graf**Group Risk & Safety**Institute of Structural Engineering, ETH Zürich*

Probabilistic models for natural hazards generally aim at describing the probabilistic characteristics of the underlying physical phenomena associated with the natural hazard events. Thereby, the degree of the detail and requirements to the probabilistic models should be associated with their applications, i.e. types of risk management and more generally decision situations. Seen in this light, most of the existing typhoon models seem to be developed primarily for assessing wind hazards for the purpose to facilitate structural design in regard to wind loads and assessing insured portfolio losses. Whereas these are some of the most relevant and successful applications of the typhoon models, there are other relevant decision situations where the typhoon model can potentially be useful. The typhoon model developed by the group of Risk and Safety at

ETH Zurich is developed with the scope of applying a broader range of decision situations. Such decision situations include: near-real-time decision making for the evacuation of people and shut-down of engineered facilities in the face of emerging typhoon events; adaptation of building codes in regard to wind loads to the possible increase of wind hazards that might be caused by the global climate change.