

Date: February 25th, 2005

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Location: Olin 305

Speaker: Dr. Vasily Titov
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Title: “Lessons learned from modeling the December 26,
2004 Indian Ocean tsunami”

Abstract

The tragedy of December 26, 2004 has utterly transformed our perception of the tsunami hazard. The need for models to better understand and forecast tsunamis has become clearer than ever before. At present, numerical models of tsunami dynamics are not part of the tsunami warning procedures. Although results of such models were not available in “real time” for the Indian Ocean tsunami, several tsunami propagation simulations became available shortly after the event, demonstrating once again the feasibility of real-time tsunami warning modeling. However, we are faced with numerous technical obstacles. Three primary requirements are accuracy, speed, and robustness. Simulation of the Indian Ocean tsunami simultaneously highlighted the difficulty of achieving these requirements while illustrating the value of model estimates for both warning and hazard mitigation. The lessons learned from the MOST model simulation of the December 26, 2004 Indian Ocean tsunami and from previous tsunami modeling efforts will be discussed.