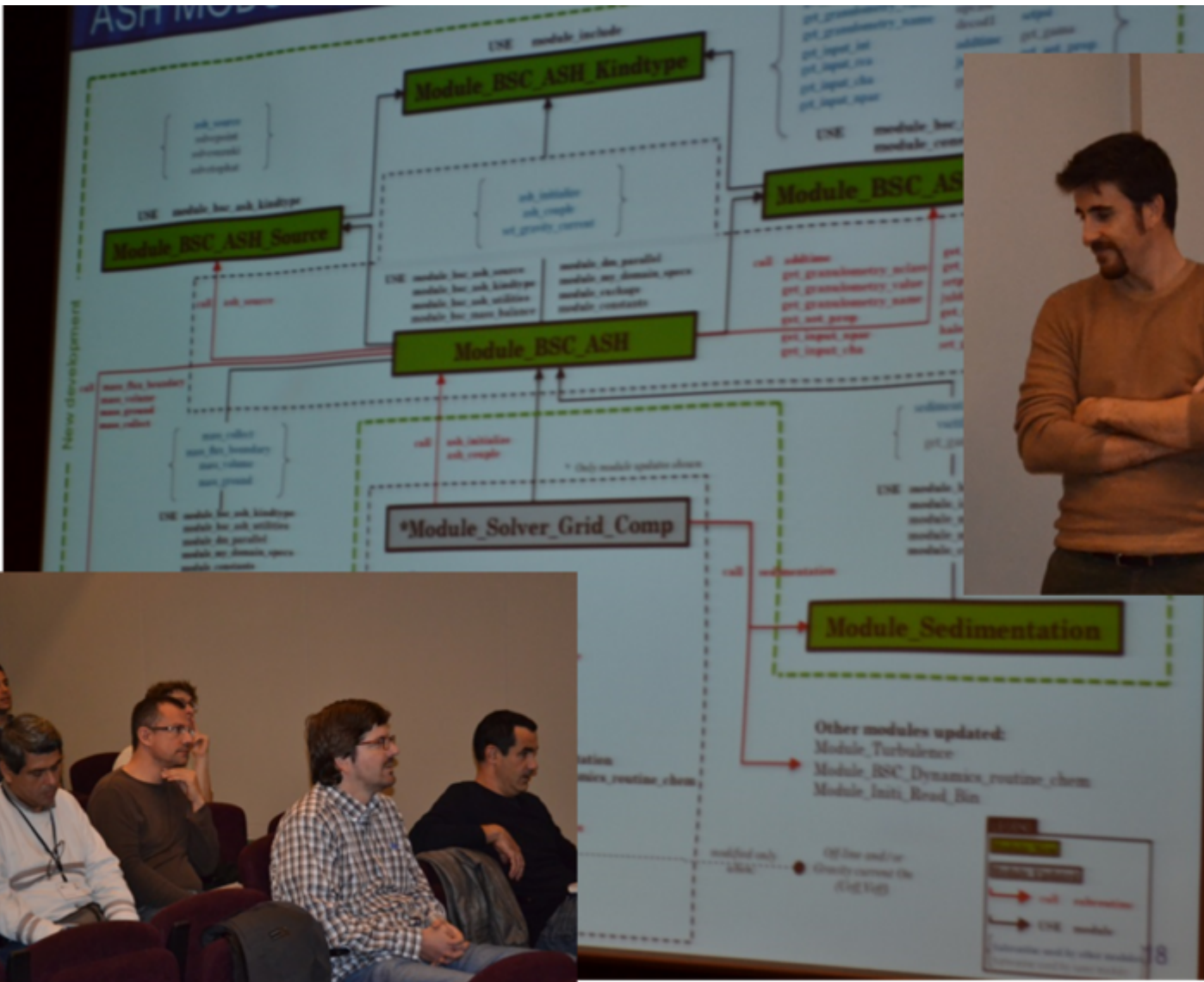


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Speaker: Alejandro Marti?, BSC



Abstrac: tLarge explosive volcanic eruptions can inject significant amounts of tephra and aerosols (e.g. SO₂) into the atmosphere inducing a multi-scale array of physical, chemical and biological feedbacks within the environment. Effective coupled Numerical Weather Prediction (NWP) models capable to forecast on-line the spatial and temporal distribution of volcanic ash and aerosols are necessary to assess the magnitude of these feedback effects. However, due to several limitations (users from different communities, operational constrains, computational power, etc.), tephra transport models and NWP models have evolved

independently from one another. [For further details follow the link.](#)

Bio: Alejandro Marti? is a researcher at the CASE's Environmental Simulations group at the Barcelona Supercomputing Center (BSC-CNS), and a PhD candidate at the Polytechnic University of Catalonia (UPC). His research aims at quantifying the feedback effects of volcanic ash clouds and aerosols emitted during large-magnitude explosive eruptions on regional meteorology using a state-of-the-art chemical weather prediction model (NMMB/BSC-CTM). His research is sponsored by the NEMOH-ITN FP7 Network, which aims to develop and form the next generation of European volcanologists.

Before joining the BSC, Mr. Marti? worked as climate systems researcher at the UK MetOffice/University of Exeter where he researched the impact of changes in atmospheric composition and land management on terrestrial ecosystems. Previously, he had a successful career in United States as a geoscientist, where he spent almost 10 years developing computer applications for land-use management for a US-Governmental planning agency. Finally, he served as an Assistant Professor at different American Universities teaching courses in GIS and Remote Sensing.

He holds a Bachelor degree in Environmental Sciences, a Masters Degree in Environmental Engineering and a Masters Degree in Geographic Information Systems and Remote Sensing from Rutgers and Princeton University.

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