



## Geofizički odsjek

Prirodoslovno-matematički fakultet, Sveučilište u Zagrebu

Horvatovac 95, 10000 Zagreb

Tel. (01) 4605-900, fax: (01) 4680-331

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## O B A V I J E S T

Dana **6.4.2016.** u **13<sup>15</sup>** održat će se u okviru seminara i kolokvija na Geofizičkom odsjeku PMF-a sljedeće izlaganje:

### **Mag. Johannes Sachsperger**

*(Department of Meteorology and Geophysics, University of Vienna, Vienna, Austria):*

### **Interfacial lee waves: theory, simulations and observations**

**ABSTRACT:** Lee waves are a special type of gravity wave response in stratified flows over mountains, characterized by vertical orientation of phase lines and horizontal propagation of wave energy. In the atmosphere, lee waves have a typical wavelength of 3-15 km and can be observed frequently in satellite images as cloud stripe pattern in the lee of mountains. Interfacial waves are the most frequently observed type of lee waves. Similar to waves on a free water surface, interfacial lee waves form on a sharp discontinuity of the vertical density profile, such as the boundary-layer capping inversion. In case of large amplitude, those waves are known to give rise to low-level turbulence, which poses a potential hazard for aviation. Therefore, knowledge of the dependence of their wavelength and amplitude on the properties of the flow is important. In my talk, I will review analytical models that can be used to describe the properties of those waves. Furthermore, I will demonstrate the strengths and weaknesses of these theoretical models using simulations and observations.

Pozivaju se studenti, absolventi i svi zainteresirani da prisustvuju predavanju, koje će se održati u predavaoni br. 2 Geofizičkog odsjeka PMF-a, Horvatovac 95, Zagreb. Studenti 2. godine diplomskog sveučilišnog studija Fizika - geofizika imaju obvezu prisustvovanja predavanjima u sklopu Geofizičkog seminara.