## Geodynamics Seminar

## 第341回ジオダイナミクスセミナー

## **Ab Initio Lower Mantle Model**

Dr. Taku Tsuchiya (Professor, GRC)

主催:愛媛大学地球深部ダイナミクス研究センター

日時:11/2(金)午後4時30分~ 場所:総合研究棟4F会議室





## **Abstract**

Recent progress in theoretical mineral physics based on the ab initio quantum mechanical computation method has been dramatic in conjunction with the rapid advancement of computer technologies. It is now possible to predict stability and several physical properties of complex minerals quantitatively with uncertainties that are comparable to or even smaller than those attached in experimental data. In this seminar, I will show a latest ab initio model of the Earth's lower mantle (LM) constructed based on recent achievements from TMPG. Topics will cover (1)mineralogy of the current LM, (2)insights into the subducting crustal materials, and also (3)some preliminary outputs on the transport properties of dominant phases and dynamics and evolution of the LM.