グローバルCOE地球惑星科学 フロンティアセミナー

講演者 : Luis Rivera 教授

所属: ストラスブール大学地球物理研究所

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Fast source determination and error analysis for large earthquakes

講義内容:

Until recently, it was necessary to wait several hours before having a reliable source solution for large earthquakes. With the purpose of accelerating centroid moment tensor (CMT) determinations, we have recently developed a source inversion algorithm based on modelling of the W phase, a very long period phase (100–1000 s) arriving at the same time as the /P/ wave. I have not not planned to talk too much about the algorithm itself but rather about the results we have been obtaining with it (of course I will be happy to come back to the methodological aspects either during the questions or at any other time). I will show examples both at global and regional scales and both offline and in real time applications. On the other hand I would like to discuss the question of the uncertainties on the data and on the modeling assumptions. How to take them into account and how they affect the solution itself and the associated uncertainty. Some of the material I will cover can be found in the following references:

- 1) http://onlinelibrary.wiley.com/doi/10.1111/j.1365-246X.2008.03887.x/full
- 2) http://onlinelibrary.wiley.com/doi/10.1111/j.1365-246X.2012.05419.x/full
- 3) http://onlinelibrary.wiley.com/doi/10.1111/j.1365-246X.2012.05554.x/full