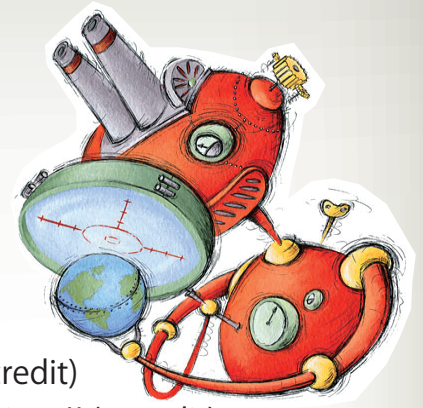


Intensive Lecture Information

Reflection Seismology

Dr. Akihisa Takahashi

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Japan Petroleum Exploration Co., Ltd.



Name of Lecture :

MC — Earth and Planetary Dynamics Special Training II (1 credit)

DC — Earth and Planetary Dynamics Special Advanced Training II (1 credit)

Overview of the course :

Reflection seismic method have been mainly developed for the petroleum exploration, and in these days it plays an important role in geological structure delineation toward the earthquake disaster prevention and monitoring of the CO₂ injection in CCS(Carbon Dioxide Capture and Storage). First part of this course provides with the basics for the reflection seismology including data acquisition, data processing and interpretation. Then, application to petroleum exploration, earthquake disaster mitigation, and CCS monitoring will be reviewed. In exercises, participants will experience the basic principle of reflection seismology and the concept of interpretation.

※The contents of the lecture (except for some parts) are different from those in the last academic year so that the students who took the class by Dr.Takahashi in the last academic year are also encouraged to attend.

※ As for the GP-EES students, the credit for this course can be used to fulfill a part of your GP-EES requirements if you wish.

Date : December 19-20, 2019

Place : Research Center for Prediction of Earthquakes and Volcanic Eruptions,
Building A (new bld.), Lecture Room (#205)

Total 12 hours, including 5 hour exercises related to the reflection seismology.

Knowledge level:

Basic knowledge of physics and mathematics (1st grade level)

Who should participate? :

Those who interested in the reflection seismic method. It is not limited to the students in geophysics but also students in geology, petroleum engineering, and environmental engineering, and so on. The lecture will be given both in Japanese and English. Therefore, foreign students are also welcome to the school.

Contact : Prof. Toru MATSUZAWA E-mail: toru.matsuzawa.c6@tohoku.ac.jp
(Research Center for Prediction of Earthquakes and Volcanic Eruptions)

Those who wish to attend are asked to contact Prof. Matsuzawa via e-mail by Dec. 9th, 2019.

Tentative schedule

Day 1	10:00-12:00	Chapter 1 Data Acquisition and Processing
Day 1	13:00-15:00	Workshop 1
Day 1	15:20-17:00	Interpretation and geological model construction
Day 2	10:00-12:00	Workshop 2
Day 2	13:00-14:40	Workshop 3
Day 2	15:00-17:00	Application to petroleum exploration, earthquake disaster mitigation, CCS monitoring