International Workshop on "Seismicity near the Hutubi Underground Gas Storage and Mechanism of Induced Earthquakes"

Date: 26-27 March, 2018

3. 26: Hutubi project meeting (in Mandarin)

3. 27: International workshop of "Mechanism of Induced Earthquakes"

Venue: Conference Room, 3/F, Mong Man Wai Building,

The Chinese University of Hong Kong

Organizers:

- 1. Hongfeng Yang, Teng-fong Wong, Lin Liu Earth System Science Programme, CUHK
- 2. Baoshan Wang,
 Division of Experimental Geophysics, Institute of
 Geophysics, China Earthquake Administration

Workshop Agenda

Day 1 Mar. 26, 2018

9:00-12:00 noon. Hutubi Project Meeting Presentations (in Mandarin).

呼图壁项目组报告 (中文)

| Venue: Conference Room, 3/F, MMW, CUHK | | | | |
|--|--|--------------------------|---|--|
| Time 时间 | Title 题目 | Speaker 报告人 | Affiliation 所属机构 | |
| 9:00-9:20 | "Hutubi underground gas storage three-dimensional spatiotemporal deformation and injection pressure changes in the mechanism of research" project progress report 呼图壁地下储气库三维时空形变与注入压力变化机理研究"项目进展情况报告 | Xiaoqiang Wang 王晓强 | Earthquake Agency of Xinjiang Uygur Autonomous Region, China 新疆维吾尔自治区地 震局 | |
| 9:20-9:40 | The analysis and evalution of groundwater between withdrawing and recharging in the Underground Gas Storage Reservoir of Hutubi 呼图壁地下储气库地区地下水抽水和补给的分析与评价 | Jie Li 李杰 | Earthquake Agency of Xinjiang Uygur Autonomous Region, China 新疆维吾尔自治区地 震局 | |
| 9:40-10:00 | Poroelastic analysis of cyclic gas injection and extraction of the Hutubi gas reservoir 呼图壁气田循环注气与采气的孔隙弹性分析 | Guoyan Jiang 江國焰 | The Chinese University of Hong Kong 香港中文大学 | |
| 10:00-10:20 | Effect of the cyclic pore pressure on rock physical properties 循环孔隙压力作用下砂岩的物性变化 | Lili Song 宋丽莉 | Institute of Geophysics, China Earthquake Administration 中国地震局地球物理 研究所 | |
| 10:20-10:40 | Tea break | | | |
| 10:40-11:00 | Monitor the velocity variation of underground medium around the Hutubi underground gas storage using air-gun source 新疆呼图壁大容量气枪震源部分工作进展 | Jinbo Su 苏金波 | Earthquake Administration of Xinjiang Uygur Autonomous Region, China 新疆维吾尔自治区地 震局 | |

| 11:00-11:20 | Primary analysis of the waveform data from the Hutubi airgun experiment 呼图壁气枪数据波形初步分析 | Wen Yu 于雯 | University of Science and Technology of China 中国科学技术大学 |
|-------------|--|--------------------------|--|
| 11:20-11:40 | Investigations of potentially induced seismicity near Hutubi underground gas storage 呼图壁储气库附近潜在诱发地震的研究 | Pengcheng Zhou 問鹏程 | The Chinese University of Hong Kong 香港中文大学 |
| 11:40-12:00 | The crustal deformation monitoring of Hutubi Underground Gas Storage, XinJiang of China by PS-InSAR PS-InSAR 对中国新疆呼图壁地下储气库 的地壳形变监测 | Wei Chen 陈威 | Institute of Seismology, China Earthquake Administration 湖北省地震局(中国 地震局地震研究所) |

14:00-16:00 p.m. Group discussion

| Time | Group | Meeting venue |
|-------------|-----------------------------|---------------------------------|
| 时间 | 项目组 | 地点 |
| 14:00-16:00 | Seismology | Conference Room, 3/F, MMW, CUHK |
| | 地震学 | |
| 14:00-16:00 | Rock physics, Modelling and | Room 309, MMW, CUHK |
| | geodesy | |
| | 岩石物理实验, 数值模拟和大 | |
| | 地测量学 | |
| 16:00-16:20 | Tea break | |
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| 16:20-18:00 | Campus tour | |
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Day 2 Mar. 27, 2018

9:00 a.m.-16:40 p.m. International Workshop on Induced Earthquakes. Venue: Conference Room, 3/F, MMW, CUHK

| Time | Title | Speaker | Affiliation | |
|-------------|---|-------------------------|--|--|
| 9:00-9:05 | Opening remarks | Teng-fong Wong | The Chinese University of Hong Kong | |
| 9:05-10:00 | How Faults Wake Up: Insights from Induced Earthquakes | William L. Ellsworth | Stanford University | |
| 10:00-10:40 | Multicomponent elastic imaging: new insights from the old equations | Yunyue Elita Li | National University of Singapore | |
| 10:40-11:00 | Tea break | 1 | | |
| 11:00-11:40 | Multi-disciplinary investigation on the Hutubi underground gas storage | Baoshan Wang | Institute of Geophysics, China Earthquake Administration | |
| 11:40-12:00 | Open discussion | | | |
| 14:00-14:40 | Near surface velocity structure and its temporal changes in the Hutubi Gas Storage region | Huajian Yao | University of Science and Technology of China | |
| 14:40-15:20 | Preliminary results from the Weiyuan Shale Gas Resovoir Seismic Experiment | Risheng Chu | Institute of Geodesy and Geophysics, CAS | |
| 15:20-15:40 | Tea break | 1 | 1 | |
| 15:40-16:20 | Crustal Structure and Earthquakes near the Xinfengjiang Water Reservoir | Hongfeng Yang | The Chinese University of Hong Kong | |
| 16:20-16:40 | Open discussion | | | |