



30 October, 2015

IGCP Project 641: M3EF3. Mechanisms, Monitoring and Modeling Earth Fissure generation and Fault activation due to subsurface Fluid exploitation

WORKSHOP 2015

Nov.10-11, 2015, Nanjing China

Program

Main Topics at M3EF3 Workshop

1. Study cases
2. Mechanisms of earth fissuring
3. Monitoring and modeling land subsidence and earth fissuring
4. Risk Assessment and mitigation of earth fissuring

Nov.10th, 2015

8:00-8:30 Registration

8:30-9:00 Opening Session

8:30-8:35 Introducing invited guests and participants

8:35-8:40 Workshop Introduction

8:40-8:45 Address by Nanjing University representative

8:45-9:00 Group photo

9:00-10:40. Topic 1: Study cases

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| 9:00-9:30 | Dongguang Wen, China Geological Survey (CGS)
Earth Fissures in China | Invited talk |
| 9:30-10:00 | Devin Galloway, U.S. Geological Survey (USGS)
Earth Fissures and Surface Faults Accompanying Aquifer-System Compaction and Land Subsidence in the USA | Invited talk |
| 10:00-10:20 | Guangya Wang, Geological Survey of Jiangsu Province, China
Earth Fissures in the Su-Xi-Chang Area of Jiangsu Province | |
| 10:20-10:40 | Yan Yang, Beijing Institute of Hydrogeology and Engineering Geology
Research of Land Subsidence and Ground Fissure Disasters in the Beijing Plain | |



10:40-11:00 Tea/Coffee Break

11:00-12:20 Topic 2: Mechanisms of earth Fissuring

- 11:00-11:30 Jianbin Peng, Yahong Deng, Chang'an University, China Invited talk
Earth Fissures in the Fenwei Basin, China
- 11:30-12:00 Mariano Cerca and Dora Carreon, National University of Mexico Invited talk
Structural Geology and Earth Fissuring Mechanisms in Mexico
- 12:00-12:20 Yun Zhang, Nanjing University, China
Mechanism for Earth Fissure Formation in the Su-Xi-Chang Area, China

12:20-13:30 Lunch

13:30-15:30 Topic 3: Monitoring and Modeling of land subsidence and earth fissuring

- 13:30-14:00 Francesco Zucca, University of Pavia, Italy Invited talk
InSAR Detection and Monitorig of Subsidence and Related Fracture Processes:
Examples and Perspectives
- 14:00-14:30 Pietro Teatini, University of Padua, Italy Invited talk
Modeling Fissure Generation and Fault Reactivation Due to Subsurface Fluid
Withdrawal
- 14:30-14:50 Shaochun Dong, Nanjing Universty, China
Time Series Analysis of Ground Deformation Based on SBAS/MSBAS
InSAR Method
- 14:50-15:10 Shujun Ye, Nanjing University, China
Three-Dimensional Numerical Modeling of Land Subsidence in Shanghai
- 15:10-15:30 Kai Gu, Nanjing University, China
Application of Distributed Fiber Optic Sensing Technique in Land Subsidence
Monitoring-from the Field to the Lab

15:30-15:50 Tea/Coffee Break

**15:50-16:20 Topic 4: Risk Assessment and mitigation of Earth fissuring,
Public Policies**

- 15:50-16:20. Agen Zhang, Land subsidence center of CGS Invited talk
Prevention and Control of Land Subsidence in China



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- 16:20-16:40 Hanmei Wang, Shang Institute of Geological Survey, China
Administrative Measures Implemented to Control Land Subsidence in Shanghai
- 16:40-17:00 Qiangbin Huang, Chang'an University, China
Ground Fissure--A Great Challenge to Metro Project in Xi'an,China
- 17:00-17:20 Luigi Tosi, Italian National Research Council of Venice, Italy
Distinguishing between Present Anthropogenic and Natural Land Subsidence in Venice by SAR Interferometry

17:20-18:00 Closure Session

- 17:20-17:30 Brief Introduction of Post Field Trip
- 17:30-17:40 Next Workshop
- 17:40-17:50 Closure Speech

18:00-20:00 Dinner

Nov.11th, 2015

Field trip: Land Subsidence and Earth Fissures in Wuxi and Suzhou

8:00-11:30 Earth Fissures in Wuxi

- 8:00-10:00 Nanjing to Wuxi
- 10:00-11:30 Earth Fissures at Guangming Village, Wuxi

11:30-12:30 Lunch

12:30-15:30 Land Subsidence in Suzhou

- 12:30-14:00 Wuxi to Suzhou
- 14:00-15:30 Land Subsidence Monitoring Station in Suzhou

15:30-18:00 Suzhou to Nanjing