

# MA Jin

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Date of birth: 04/07/1988



## Working experience

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2014-2016      **Geophysicist, CGG Services**  
Seismic processing (for marine data) in Subsurface Imaging Department of CGG Singapore

## Education

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2016 - present      **PhD, Department of Earth Science, ETH Zurich**  
Major: Geothermal Energy and Geofluids

2011-2014      **Master, Department of Thermal Engineering, Tsinghua University**  
Major: Energy, Power System and Automation

2007-2011      **Bachelor, Department of Thermal Engineering, Tsinghua University**  
Major: Power Engineering and Engineering Thermo-physics

## Research

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**Subject: CO<sub>2</sub> and water two phase flow in porous media under CO<sub>2</sub> storage conditions**

- ✓ **Experimental research of CO<sub>2</sub>/water two phase flow mechanism**
  - Performed experiments on relative permeability and capillary curves on different rock samples in Tsinghua University (2010-2013).
- ✓ **Experimental research of permeability change due to CO<sub>2</sub> exsolution.**
  - Performed experiments on permeability change due to CO<sub>2</sub> exsolution triggered by pressure drop in Tsinghua University (2013.02-06).
- ✓ **Experimental research of rock property change due to calcite dissolution and precipitation.**
  - Performed experiments on porosity and permeability change due to calcite dissolution and precipitation in the School of Earth and Environment, University of Leeds, UK (2013.06-08).
- ✓ **Numerical simulations of two phase flow in core and field scale.**
  - Studied key parameters for experiment fitting by TOUGH2 simulation in BRGM (Bureau de Recherches Géologiques et Minières), France (2012.05-06).
  - Performed field scale simulations by TOUGH2 and established methodology to estimate CO<sub>2</sub> storage capacity in Tsinghua University (2011-2013)
- ✓ **Experimental research of NMR (Nuclear Magnetic Resonance)**
  - Performed a series of experiments on MR in Numag research center (2012.07-08).

**Publications:**

- Jin Ma, Désirée Petrilli, Jean-Charles Manceau, et al. Core scale modelling of CO<sub>2</sub> flowing: identifying key parameters and experiment fitting. *Energy Procedia*, 2013, 37: 5464-5472.
- MA Jin, XU Rui-Na, LUO Shu. Core-scale Experimental Study on Supercritical-Pressure CO<sub>2</sub> Migration Mechanism during CO<sub>2</sub> Geological Storage in Deep Saline Aquifers. *Journal of Engineering Thermophysics*, 2012, 33:1971-1975.
- JC. Manceau, J. Ma, R. Li, et al. Two-phase flow properties of a sandstone rock for the CO<sub>2</sub>/water system: Core-flooding experiments, and focus on impacts of mineralogical changes. *Water Resources Research*, 2015, 51: 2885-2900.