

# Curriculum Vitae



## About

Name: Tengfei Wang  
Gender: Male  
Profession:  
Geophysics  
mail:1110701@tongji.edu.cn  
Address: NO.1239,  
Yangpu District,  
Shanghai  
Phone: 18817367538

## Language

CET-6 : 522

## Programming

Unix/Linux  
C/C++  
MPI/OpenMP  
Shell/Python/Java  
MySQL

## Special skills

1. High-performance computing with C through MPI & OpenMP.
2. C++/Python/Java/MySQL & Unix/Linux OS
3. Large data processing & Small-cluster maintenance experience.
4. Good mathematical background.

## Education

2011-2017 PhD. Tongji University Profession: Geophysics

2007-2011 B.S. Tongji University Profession: Geophysics

## Research

2010-2011 Local angle domain imaging in azimuthally anisotropic media

Complete MPI algorithm independently & publish SCI journal article as second author.

2011-2013 Velocity model building with Tomography based on angle gather in depth domain

Combine open-source software to solve large sparse matrix in geophysical problem & parallelization it with OpenMP and MPI

2013-2015 Elastic full waveform inversion based on wave mode decomposition

Complete algorithm design and programming with hybrid MPI+OpenMP method to solve the memory consumption problem. The SCI journal article as first author is under review.

2015 – Elastic reflection waveform inversion based on wave mode decomposition

Transplant open-source algorithm from Java and Python platform to C program, in which the algorithm was used to recognize the similar behavior in geophysical data as in audio and video. The article under this subject is preparing.

## Internship

2012-2014 CNPC CDEC Sichuan Geophysical Company

Participate the project of my tutor and transplant the Tomography algorithm into the platform of their company.

2011-2012 Sinopec research center in Nanjing

Participate the project of my tutor and take responsibility to the test and transplantation of the algorithm. Complete part of the algorithm optimization.

## Honor

|      |  |
|------|--|
| 2011 | Geophysical scholarship of Liu Guangding     |
| 2012 | The Graduate National scholarship            |
| 2013 | Geophysical scholarship of Tongji University |

## Publication

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|------|---|
| 2012 | <b>Geophysics: Azimuth-preserved local angle-domain prestack time migration in isotropic vertical transversely isotropic and azimuthally anisotropic media</b><br>Jiubing Cheng, Tengfei Wang, Chenglong Wang, Jianhua Geng |
| 2016 | <b>Geophysics: Elastic full waveform inversion based on mode decomposition: The approach and mechanism</b><br>Tengfei Wang, Jiubing Cheng (in review)   |

## International experience

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|------|---|
| 2016 | <b>3-month visit in KAUST</b>   |
| 2016 | <b>EAGE annual meeting</b><br>Oral Presentation: Comparison between mode decomposition based and Gaussian Newton methods in elastic full waveform inversion |
| 2015 | <b>EAGE annual meeting</b><br>Oral Presentation: Elastic wave mode decoupling for full waveform inversion   |
| 2012 | <b>SEG annual meeting</b><br>Oral presentation: Pure mode modeling and reverse-time migration of P-wave in HTI and orthorhombic media                       |