# Chenlong Wang

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#### Research interests

Ph.D candidate works on seismic wave propagation, elastic wave imaging, velocity inversion, geophysical computing and high performance computing.

#### Education

2011-2017 Ph.D. in Geophysics School of ocean and earth science, Tongji university,

Shanghai

▷ GPA :4.55/5.

2007-2011 Bachelor in Geophysics School of ocean and earth science, Tongji university,

*Shanghai* ▷ *GPA* :4.25/5.

Experience

2016.10-11 Computational Geophysicist Bureau of Geophysical prospecting INC.

CNPC. Hebei, China

▷ Internship, generation of 2D acoustic/elastic imaging with walk-away vsp data (with

vice chief engineer Yanpeng Li).

2014-2015 Visiting Ph.D. in Geophysics Norwegian university of science and techno-

logy, Norway

> generation of 3D elastic imaging and 2D wave equation migration velocity analysis

(with Prof. Børge Arntsen and Assistant Prof. Wiktor Weibull).

2014.11-11 Geophysicist Pyrenees field trip, Barcelona, Spain

> Internship, identification of outcrops and petroleum geology features in different

basins (with Prof. Josep Anton).

2012.9-10 Computational Geophysicist CNPC Chuanging drilling engineering Co.,

Sichuan, China

 $\triangleright$  Internship, estimation of micro-seismic location with real perforation data (with

engineer Cheng Yin).

### Computer skills

Github www.github.com/chenlonw

**Languages** C/C++, Python, Matlab, Frotran, Shell

Web Jekyll, Markdown, CSS, HTML Platforms Madagascar, Seismic Unix

#### **Publications**

Peer-reviewed articles (in preparation)

**2017** Wang C.L., Weibull W.W., Cheng J.B., and Arntsen B. Converted-wave ex-

tended images for shear velocity estimation with wave mode decoupling. Geo-

**physics**, in preparation.

**2017** Wang C.L. and Cheng J.B. P/S wave mode separation of multi-component

seismogram in anisotropic media. Geophysical prospecting, in preparation.

**2017** Wang C.L., Cheng J.B., Weibull W.W. and Arntsen B. 3D angle domain vector

imaging in anisotropic media. Geophysical prospecting, in preparation.

Peer-reviewed articles (published)

**2016** Wang C.L., Cheng J.B., and Arntsen B. Scalar and vector imaging based on

wave mode decoupling for elastic reverse time migration in isotropic and TI

media. **Geophysics**, 81(5), S383-S398, doi:10.1190/GEO2015-0704.1

2016	Yu P.F., Geng J.H., and <b>Wang C.L.</b> . Separating quasi-P-wave in transversely isotropic media with a vertical symmetry axis by synthesized pressure applied to ocean-bottom seismic data elastic reverse time migration. <b>Geophysics</b> , 81(6) C295-C307, doi:10.1190/geo2016-0108.1	
2016	Yu P.F., Geng J.H., Li X.B. and <b>Wang C.L.</b> Acoustic-elastic coupled equation for ocean bottom seismic data elastic reverse time migration. <b>Geophysics</b> , 81(5), S333-S345, doi:10.1190/geo2015-0535.1	
2016	Cheng J.B., Alkhalifah T., Wu Z.D., Zou P. and <b>Wang C.L.</b> . Simulating propagation of decoupled elastic waves using low-rank approximate mixed-domain integral operators for anisotropic media. <b>Geophysics</b> , 81(2), T63–T77, doi: 10.1190/geo20150184.1	
2013	Wang C.L., Cheng J.B., Yin C. and Liu H. Microseismic events location of surface and borehole observation with reverse time focusing using interferometry technique. Chinese J. of Geophys, 56(9):3184-3196, doi:10.6038/cjg20130931	
2012	Cheng J.B., Wang T.F., Wang C.L., and Geng J.H. Azimuth-preserved local angle-domain prestack time migration in isotropic, vertical transversely isotropic and azimuthally anisotropic media. <b>Geophysics</b> , 77(2), S51–S64.doi: 10.1190/geo2011-0295.1	
Peer-review	red abstracts	
2017	Wang C.L., Cheng J.B., Weibull W.W. and Arntsen B. Analysis of converted-wave extended images for shear velocity estimation with wave mode decoupling, 87th SEG Technical Program Expanded Abstracts, Houston, United States.	
2017	Wang T.F., Cheng J.B., Guo Q. and <b>Wang C.L.</b> , Elastic wave equation reflection traveltime inversion using dynamic warping and wave mode decomposition. 79th EAGE Conference and Exhibition, Paris, France.	
2017	Wang C.L., Cheng J.B., P/S separation of multi-component seismogram recorded in anisotropic media. 79th EAGE Conference and Exhibition, Paris, France.	
2017	Wang C.L., Weibull W.W., Cheng J.B., and Arntsen B., Automatic shear-wave velocity analysis with elastic reverse time migration. 79th EAGE Conference and Exhibition, Paris, France.	
2017	Wang C.L., Cheng J.B., and Weibull W.W., 3D vector imaging of converted waves for fractured reservoirs. 79th EAGE Conference and Exhibition, Paris, France.	
2015	Wang C.L., Cheng J.B., and Arntsen B. Imaging condition for converted waves based on decoupled elastic wave modes. 85th SEG Technical Program Expanded Abstracts, New Orleans, United States.	
2015	Wang T.F. Cheng J.B. and <b>Wang C.L.</b> Elastic wave mode decoupling for full waveform inversion. 77th EAGE Conference and Exhibition, Madrid, Spain.	
2015	Wang C.L. Cheng J.B. and Arntsen B. Numerical pure wave source implementation and its application to elastic reverse time migration in anisotropic media. 77th EAGE Conference and Exhibition, Madrid, Spain.	
2014	Wang C.L. Cheng J.B. and Wang T.F. Local angle domain elastic reverse time migration in TI media. 76th EAGE Conference and Exhibition, Amsterdam, The Netherlands.	
2014	Wang C.L. Cheng J.B. and Wang T.F. Local angle domain elastic reverse time migration in anisotropic media. SPG/SEG International Geophysical Conference, Beijing, China.	

 $rence,\,Beijing,\,China.$ 

2012	Wang C.L., Cheng J.B., and Kang W. Separating wave-modes of prestack		
	elastic seismograms using pure mode wave propagators in anisotropic media.		
	83rd SEG Technical Program Expanded Abstracts, Las Vegas, United States.		
2011	Wang C.L. Cheng J.B. Micro-seismic events location using reverse time me-		

thod with interferometric imaging condition. SPG/SEG International Geophysical Conference, Shenzhen, China.

# Workshop talks

2017	Cheng J.B., Wang T.F. and <b>Wang C.L.</b> Mode decomposition-based preconditioning for elastic wave equation reflection traveltime inversion and migration velocity analysis. 3rd SEG workshop in full waveform inversion, Manama, Bahrain.
2016	Cheng J.B., <b>Wang C.L.</b> Vector imaging of the decomposed elastic wave modes for 3d heterogeneous ti media. 17th International Workshop on Seismic Anisotropy, Austin, United States
2015	Wang C.L. Cheng J.B. and Arntsen B. Propagating decomposed elastic wave- fields by first- and second-order wave equations using low-rank k-space method for isotropic media. Lofoten Seminar. Svalbard, Norway
2015	Cheng J.B., Wang C.L. and Wang T.F. Elastic wave mode decoupling for seismic imaging and inversion. The workshop of APSWLIM, Prage, Czech Republic

# Editorial service

2015-present	Reviewer	Journal of Geophysics and Engineering
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# Awards and honors

2017	Excellent Ph.D. graduates in Shanghai	Shanghai Education Commission
2016	Outstanding Ph.D. student	Tongji University
2014	Scholorship for studying abroad	Ministry of Education of China
2013	Outstanding graduates student	Tongji University
2011	National Encouragement Scholorship	Ministry of Education of China