# YADONG JIANG


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| **Nationality:** | Chinese | **Address:** | |
| **Birthday:** | Oct 1990 | Jayme Rios de Souza | |
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## EDUCATION

**Sep. 2014 ∼ Current - Ph.D candidate, Earthquake Engineering and Engineering Seismology**

**University School for Advanced Studies IUSS Pavia, Pavia, Italy**
**University of Pavia, Pavia, Italy**
Thesis: Seismic Assessment of Composite Frames with Concrete-Filled Steel Tube Columns (CFST) (in English)
Advisors: Ricardo Monteiro and José Miguel Castro
- Monotonic / Cyclic Bending tests of CFST members combined with constant axial load
- Micro-mechanism model development of CFST members in ABAQUS
- Distributed Plasticity (DP) Model and Concentrated Plasticity model (CP) development of CFST member in OpenSees
- Material strength correction equations deriving for circular CFST members
- Ductile fracture prediction of circular CFST members under cyclic bending
- Seismic performance assessment of composite structure based on Incremental Dynamic Analysis (IDA)

**Sep. 2012 ∼ May. 2014 - Master of Science, Earthquake Engineering and Engineering Seismology**

**University School for Advanced Studies IUSS Pavia, Pavia, Italy**
**University of Pavia, Pavia, Italy**
Thesis: Experimental and Numerical Behaviour Assessment of Rubberized Concrete Filled Steel Tube (in English)
Advisors: Ricardo Monteiro and José Miguel Castro
- Preparation of test campaign based on material properties, member ductility and lateral load types
- Steel foundation box design to constrain specimens efficiently
- Micro-mechanism model development and calibration of CFST columns in ABAQUS

**Sep. 2008 ∼ Jun. 2012 - Bachelor of Engineering, Civil Engineering**

**Tongji University, Shanghai, P.R. China**
GPA: 4.23 / 5.0 (Five-point grading system)

## RESEARCH & PROFESSIONAL EXPERIENCES

**Feb. 2017 ∼ May. 2017 - Research Assistant**

**Department of Civil and Environmental Engineering (CEE)**
**Hong Kong Polytechnic University, Hong Kong**
Project Title: Application of Polygonal High Strength Concrete-filled composite Column in Seismic-resistant Buildings in Hong Kong
Funded by: Construction Industry Council
Supervisor: Tak-Ming Chan
- Assisted the preparation of polygonal CFST specimens
- Conducted the research on the bending capacity of octangular CFST columns
- Assisted the steel coupon tests (Monotonic / Cyclic)

**Jan. 2014 ∼ Feb. 2015 - Research Assistant**

**Faculty of Engineering (FEUP)**
**University of Porto, Porto, Portugal**
Project Title: Recycling & Seismic Protection: Sustainable High Performance Concrete-Filled Steel Tubular (CFST) Columns for Seismic Areas (PTDC/ECM/117774/2010)
Funded by: Portuguese Foundation for Science and Technology (FCT)
Supervisor: José Miguel Castro
• Prepared and tested the material properties of concrete cubes and steel coupons
• Predicted the preliminary test results of prepared CFST specimens with ABAQUS

**Feb. 2012 ∼ Apr. 2012 - Internship**

**Metro tunnel cracks investigation, Shanghai, P.R. China**

## SKILL SETS

- ABAQUS / OpenSees Modelling and Analysing
- Python / C++ / C# language Programming
- Matlab Scripting
- Word / Excel / PowerPoint Processing
- Auto CAD Engineering Drawing
- LaTeX Basics
- OpenSees Material Developing

## SCHOLARSHIPS

Sep. 2014 ∼ Aug. 2017 - IUSS Ph.D. Scholarship
Sep. 2012 ∼ May. 2014 - UME-Tongji M.Sc Scholarship
Sep. 2010 ∼ Sep. 2012 - Tongji University Annual Bachelor Scholarship

## CONFERENCES & WORKSHOPS

**Sep. 2017 - Eurosteel 2017, Copenhagen, Denmark**

8th European Conference on Steel and Composite Structures
Oral Presentations:
Numerical modelling of circular CFST members and assessment of multi-axial stress state effects
Experimental characterisation of the flexural behaviour of rubberized concrete-filled steel tubular members

**Jun. 2017 - OpenSees Days Europe 2017, Porto, Portugal**

Oral Presentation:
Numerical modelling of concrete-filled steel tubular members in opensees

**Jan. 2017 - WCEE16, Santiago, Chile**

16th World Conference on Earthquake Engineering
Oral Presentation:
Experimental and numerical assessment of the behaviour of RuCFST members under monotonic and cyclic bending

**Nov. 2015 - Steel-Earth Workshop, Coimbra, Portugal**

Oral Presentation:
Experimental and Numerical Assessment of the Behaviour of Rubberized Concrete Filled Steel Tubes

**Jul. 2015 - STESSA15, Shanghai, China**

8th International Conference on Behavior of Steel Structures in Seismic Areas
Oral Presentation:
Experimental assessment of the behaviour of rubberized concrete filled steel tube members

**Jul. 2014 - OpenSees Days Portugal, Porto, Portugal**

Oral Presentation:
Opensees as an engine for web-based applications

## PUBLICATIONS

Y. Jiang, A. Silva, J.M. Castro, T.M. Chan and R. Monteiro. Experimental Study and Numerical Assessment of the Flexural behaviour of Square and Rectangular CFST Members under Monotonic and Cyclic Loading. *9th International Conference on Behavior of Steel Structures in Seismic Areas*, Christchurch, New Zealand, 2018.DOI: 10.4028/www.scientific.net/KEM.763.804

A. Silva, Y. Jiang, J.M. Castro, N. Silvestre, and R. Monteiro. Monotonic and cyclic flexural behaviour of square/rectangular rubberized concrete-filled steel tubes. *Journal of Constructional Steel Research*,139: 385 - 396, 2017. DOI: 10.1016/j.jcsr.2017.09.006.

Y. Jiang, B. Kalemi, A. Silva, J.M. Castro, and R. Monteiro. Numerical modelling of circular CFST members and assessment of multi-axial stress state effects. *ce/papers*, 1 (2 - 3): 2128 - 2137, 2017. DOI: 10.1002/cepa.258.

A. Silva, Y. Jiang, J.M. Castro, and R. Monteiro. Experimental characterisation of the flexural behaviour of rubberized concrete-filled steel tubular members. *ce/papers*, 1 (2 - 3):2147 - 2156, 2017. DOI:10.1002/cepa.260.

Y. Jiang, A. Silva, L. Macedo, J.M. Castro, and R. Monteiro. Numerical modelling of concrete-filled steel tubular members in opensees. *OpenSees Days Europe 2017*, Porto, Portugal, 2017.

Y. Jiang, A. Silva, J.M. Castro, R. Monteiro, and N. Silvestre. Experimental and numerical assessment of the behaviour of RuCFST members under monotonic and cyclic bending. *16th World Conference on Earthquake Engineering*, Santiago, Chile, 2017.

A. Silva, Y. Jiang, L. Macedo, J.M. Castro, N. Silvestre, and R. Monteiro. Seismic design of composite moment resisting frames with cfst members. *16th World Conference on Earthquake Engineering*, Santiago, Chile,2017.

A. Silva, Y. Jiang, J.M. Castro, N. Silvestre, and R. Monteiro. Experimental assessment of the flexural behaviour of circular rubberized concrete-filled steel tubes. *Journal of Constructional Steel Research*, 122: 557 - 570, 2016. DOI: 10.1016/j.jcsr.2016.04.016.

A. Silva, Y. Jiang, L. Macedo, J.M. Castro, R. Monteiro, and N. Silvestre. Seismic performance of composite moment-resisting frames achieved with sustainable cfst members. *Frontiers of Structural and Civil Engineering*, 10(3): 312 - 332, 2016. DOI: 10.1007/s11709-016-0345-y.

Y. Jiang, A. Silva, J.M. Castro, and R. Monteiro. Experimental assessment of the behaviour of rubberized concrete filled steel tube members. *8th International Conference on Behavior of Steel Structures in Seismic Areas, Shanghai, China*, 2015.

Y. Jiang, R. Barros, and J.M. Castro. Opensees as an engine for web-based applications. *OpenSees Days Portugal* 2014, Porto, Portugal, 2014.