Ruding Lou

Position:	Assistant Professor
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EDUCATION

PhD, Computer-Aided Design,   2011
co-tutelle: Arts et Meiers ParisTech, Aix en Provence, France,
         Universita degli studi di Genova, Genoa, Italy.

Master, Science of Information and System (Product design and production system),   2007
Arts et Meiers ParisTech, Aix en Provence, France.

Master, Computer Science (Distributed systems, networks and parallelism),   2006
University of Bordeaux, France.

Bachelor, Computer Science,   2003
Southwest Science and Technology University, China.

TEACHING EXPERIENCE

Assistant professor at Arts et Meiers ParisTech (Campus Cluny)	Since Sept.2012
Teaching assistant at Arts et Meiers ParisTech (Campus Aix-en-Provence)	Oct.2010 - Aug.2012
Teaching fellow at Arts et Meiers ParisTech (Campus Aix-en-Provence)	Oct.2007 - Sept.2010

RESEARCH INTERESTS

Geometry and Semantics information processing
- application for numerical engineering: CAD-less shape modelling, FE mesh processing
- application for virtual reality: reducing cybersickness (motion sickness) and intuitive interaction

Multi-User visualization and interaction with multi-representation of Digital Mock-Up in virtual reality
- domain specific experts collaboration in product engineering
- user participation in ergonomical design of automobiles

Virtual reality (VR) application
- Physical vapor deposition PVD
- Urban design : foster citizen participation and creativity in urban design project
- AEC : task-centered methodology for guiding VR application design
- VR aided building facility management and maintenance
- Building design clash resolution in VR
- Reverse engineering : virtual scanning

LANGUAGES

Chinese:	mother language
French:	very fluently
English:	professional

PUBLICATIONS

International Journals
- **R. Lou**, A. Mikchevitch, J-P. Pernot, P. Veon, Merging enriched Finite Element triangle meshes for fast prototyping of alternate solutions in the context of industrial maintenance, *Computer-Aided Design* 42 - 8 (2010) 670–681

- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, B. Falcidieno, P. Veon, R. Marc, Direct modification of semantically-enriched Finite Element Meshes, *Shape Modeling* 16 - 1 (2010) 81–108

- **R. Lou**, J-P. Pernot, F. Giannini, P. Veon, B. Falcidieno, Filleting sharp edges of multi-partitioned volume finite element meshes, *Engineering Computations* 32 - 1 (2015) 129–154

- B. Li, **R. Lou**, F. Segonds, F. Merienne, Multi-user interface for co-located real-time work with digital mock-up: a way to foster collaboration, *Interactive Design and Manufacturing*, **11** - 3 (2016) 609–621

- B. Li, H. Zhang, **R. Lou**, Study of Efficiency of Multi View System in Multi-Disciplinary Collaboration Task, *Research and Science Today*, 2 - 1 (2017) 92–100

- B. Li, F. Segonds, C. Mateev, **R. Lou**, F. Merienne, Design in context of use: An experiment with a multi-view and multi-representation system for collaborative design, *Computers in Industry*, 103 - 1 (2018) 28–37

- B. Faliu, A. Siarheyeva, **R. Lou** and F. Merienne, Design and Prototyping of an Interactive Virtual Environment to Foster Citizen Participation and Creativity in Urban Design, Lecture Notes in Information Systems and Organisation, *Springer, Cham*, 34 (2019) 55–78

- P. Raimbaud, **R. Lou**, F. Danglade, P. Figueroa, and T. Hernandez, F. Merienne, A Task-Centred Methodology to Evaluate the Design of Virtual Reality User Interactions: A Case Study on Hazard Identification, *Buildings* , 11 - 7 (2011)

International Conferences
- **R. Lou**, A. Mikchevitch, J-P. Pernot, P. Veon, Direct merging of triangle meshes preserving simulation semantics for fast modification of numerical models, *Tools and Methods of Competitive Engineering* (TMCE), vol.1, pp.119-131, Turkey, 2008

- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Towards CAD-less Finite Element analysis using group boundaries for enriched meshes manipulation, *ASME Int. Design Eng. Tech. Conf. & Computers and Information in Eng. Conf.* San Diego, USA, 2009

- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Towards semantic-based 3D mesh modeling, *FOCUS-K3D Conference on Semantic 3D Media and Content*, Sophia Antipolis, France, 2010

- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Direct modification of FE meshes preserving group information, *Tools and Methods of Competitive Engineering* (TMCE), vol.1, pp.303-315, Ancona, Italy, April 2010

- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Semantic-preserving mesh direct drilling, *Shape Modeling International* (SMI) pp.68-77, Aix-en-Provence, France, 2010

- **R. Lou**, J-P. Pernot, F. Giannini, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Sharp edge filleting of enriched finite element meshes, *Tools and Methods of Competitive Engineering* (TMCE), vol.1, pp.650-659, Karlsruhe, Germany, 2012

- Z. Li, **R. Lou**, Subdivision surface generation from network of curves, *Tools and Methods of Competitive Engineering* (TMCE), vol.1, pp.673-684, Budapest, Hungary, May 2014

- B. Li, **R. Lou**, F. Segonds, F. Merienne, A Multi-view and Multi-interaction System for Digital Mock-up's collaborative environment, *European Association for Virtual Reality and Augmented Reality* (EuroVR), Lecco, Italy, 2015

- B. Li, **R. Lou**, F. Segonds, F. Merienne, Multi-user Interface for Co-located Real-time Collaborative Work with Digital Mock-up, *Virtual Concept Workshop – Major Trends in Product Design*, Bordeaux, France, 2016

- B. Li, **R. Lou**, J. Posselt, F. Segonds, F. Merienne, A. Kemeny, Multi-view VR system for co-located multidisciplinary collaboration and its application in ergonomic design, *23rd ACM Symposium on Virtual Reality Software and Technology* (VRST), ACM, New York, NY, USA, 2017

- P. Raimbaud, F. Merienne, F. Danglade, **R. Lou**, T. Hernandez, and P. Figueroa, Smart adaptation of BIM for virtual reality, depending on building project actors' needs: the nursery case, *IEEE Conference on Virtual Reality and 3D User Interfaces* (IEEE VR), pp. 667–668, Reutlingen, Germany, March 2018

- B. Faliu, A. Siarheyeva, **R. Lou** and F. Merienne, Design and prototyping of an interactive virtual environment to foster citizen participation and creativity in urban design, *27th International Conference on Information Systems Development* (ISD), Lund, Sweden, August 2018

- **R. Lou** and J-R. Chardonnet, Reducing Cybersickness by Geometry Deformation, *IEEE Conference on Virtual Reality and 3D User Interfaces* (IEEE VR), pp. 1058-1059, Osaka, Japan, 2019

- P. Raimbaud, **R. Lou**, F. Merienne, F. Danglade, P. Figueroa, and T. Hernandez, BIM-based mixed reality application for supervision of construction, *IEEE Conference on Virtual Reality and 3D User Interfaces* (IEEE VR) Workshop on Smart Work Technologies, Osaka, Japan, 2019

- P. Raimbaud, M. B. Palacios, J. P. R. Cortes, P. Figueroa, **R. Lou**, F. Danglade, F. Merienne, and J.-T. Hernandez, A Virtual Reality and BIM Approach for Clash Resolution, *European Association for Virtual Reality and Augmented Reality* (EuroVR), TALLINN, ESTONIA, 2019

- A. Scalas, Y. Zhu, F Giannini, **R. Lou**, K. Lupinetti, M. Monti, M. Mortara, M. Spagnuolo, A first step towards cage-based deformation in Virtual Reality, *Smart Tools and Applications in Graphics* (STAG), pp. 119-130, 2020

National Conferences
- **R. Lou**, F. Giannini, J-P. Pernot, A. Mikchevitch, P. Veon, B. Falcidieno, R. Marc, Perçge de maillage préservant la sémantique, *Journées du Groupe de Travail en Modélisation Géométrique*, Dijon, France 2010

- P. RAIMBAUD, F. MERIENNE, P. FIGUEROA, F. DANGLADE, **R. Lou**, J. T. HERNANDEZ, BIM-based mixed reality environments to improve AEC task performance, *2nd Workshop CATAÏ*, Colombia, 2019

- **R. Lou**, Geometry deformation for reducing cybersickness in VR, *Journées Françaises d'Informatique Graphique et de Réalité Virtuelle*, Marseille, France, 2019

- Y. Jin, L. Joblot, **R. Lou**, F. Merienne, Utilisation du BIM dans une application RV à des fins de maintenance d'un bâtiment, *eCONFERE*, France, 2020

- R. Guillaume, X. Laville, Y. Baudin, R. Guillaume, J. Pailhès, E. Gruhier, **R. Lou**, Détection d'Intention dans un Environnement de Conception en Réalité Virtuelle, *S.mart*, France, 2021