



TO MAGNIFICA RETTRICE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6909

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di Fisica Aldo Pontremoli

Scientist- in - charge: Prof. Stefano Zapperi

[Yudong Ren]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Ren
Name	Yudong

PRESENT OCCUPATION

Appointment	Structure
Ph.D. Candidate	Superviosr: Prof. Jian-Bing Chen, College of Civil Engineering, Tongji Univeristy

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Batchelor	Civil Engineering	Harbin Institute of Technology	2018
Specialization			
PhD	Civil Engineering	Tongji University	2024(expected)
Master			
Degree of medical specialization			
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date	of	Association	City
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registration		

FOREIGN LANGUAGES

Languages	level of knowledge
English	IELTS 7.0

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2015,2016	National Scholarship
2018	100 Outstanding Undergraduate Theses in Harbin Institute of Technology
2018	Outstanding Undergraduate Graduates in Harbin Institute of Technology
2023	State Scholarship Fund by China Scholarship Council

TRAINING OR RESEARCH ACTIVITY

2018-2024	Conducted research on the energy dissipation mechanisms and damage driving force decomposition in the nonlocal macro-meso-scale damage (NMMD) model under the supervision of Prof. Jian-Bing Chen
2023-2024	Developed a new nonlocal plasticity model to describe the size effect in metals under the supervision of Prof. Dr. Michael Zaiser
2021	JCSS Continuing Education and Advanced School

PROJECT ACTIVITY

Year	Project

PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
15.02.2023	An introduction to the nonlocal macro-meso-scale consistent damage model	Dr.-Mack-Str.77, 90762 Fuerth, Institute of Materials Simulation, University of Erlangen-Nuremberg



PUBLICATIONS

Articles in reviews
Physically consistent nonlocal macro-meso-scale damage model for quasi-brittle materials: A unified multiscale perspective, International Journal of Solids and Structures, England, Elsevier, 2024, Ren, Y.-D. , Chen J.-B., Lu G.-D., 293, 112738.
Mesoscopic simulation of uniaxial compression fracture of concrete via the nonlocal macro-meso-scale consistent damage model, Engineering Fracture Mechanics, England, Elsevier, 2024, Ren Y.-D. , Chen J.-B., Lu G.-D., 304, 110148.
New insights into fracture and cracking simulation of quasi-brittle materials based on the NMMD model, Computer Methods in Applied Mechanics and Engineering, Netherlands, Elsevier, 2024, Lu G.-D., Chen J.-B., Ren Y.-D. , 432, 117437.
A structured deformation driven nonlocal macro--meso-scale consistent damage model for the compression/shear dominate failure simulation of quasi-brittle materials, Computer Methods in Applied Mechanics and Engineering, Netherlands, Elsevier, 2023, Ren Y.-D. , Chen J.-B., Lu G.-D., 410, 115945.
Meso-scale physical modeling of energetic degradation function in the nonlocal macro--meso-scale consistent damage model for quasi-brittle materials, Computer Methods in Applied Mechanics and Engineering, Netherlands, Elsevier, 2021, Chen J.-B., Ren Y.-D. , Lu G.-D., 374, 113588.
Damage in quasi-brittle materials from a two-scale perspective: from geometric discontinuity to free energy reduction, Chinese Journal of Theoretical and Applied Mechanics, P.R. China, Chinese Society of Theoretical and Applied Mechanics, Chen J.-B., Ren Y.-D. , Lu G.-D., 56(10):1-11. [in Chinese]
Ture mode II crack simulation based on a structured deformation driven nonlocal macro--meso-scale consistent damage model, Chinese Journal of Theoretical and Applied Mechanics, P.R. China, Chinese Society of Theoretical and Applied Mechanics, Ren Y.-D. , Chen J.-B., Lu G.-D., 55(2):390-402. [in Chinese]
Simulation of behaviour of typical concrete specimens based on a nonlocal macro-meso-scale consistent damage model, Chinese Journal of Theoretical and Applied Mechanics, P.R. China, Chinese Society of Theoretical and Applied Mechanics, Ren Y.-D. , Chen J.-B., 55(3): 1-16. [in Chinese]
Congress proceedings
Physically consistent nonlocal macro-meso-scale damage model, short oral presentation and poster, Daegu, Korea, 2024. The 26th International Congress of Theoretical and Applied Mechanics.
Physically consistent nonlocal macro-meso-scale damage model for brittle fracture, oral presentation, Hangzhou, P.R. China, 2024, The 5th International Symposium on Phase-Field Modeling in Materials Science.
Modeling uniaxial compressive fracture of concrete with nonlocal macro-meso-scale consistent damage model, oral presentation, Palermo, Italy, 2023, Engineering Mechanics Institute 2023 International Conference.
A structural deformation driven nonlocal macro-meso-scale damage model, oral presentation(online), Porto, Portugal, 2022, The 1st International Conference on Mechanics of Solids.
Physically-based energetic degradation function for the nonlocal macro-meso-scale consistent damage model, oral presentation(online), Shanghai, P.R. China, 2022, The 13th International Conference on Structural Safety and Reliability.

OTHER INFORMATION



Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: Shanghai P.R. China, 10.10.2024