东北大学研究生“创客学堂”项目

2019年“面向未来的岩石力学”研究生国际暑期学校

2019 Northeastern University International Postgraduate Summer School

Rock Mechanics for the Future

会务手册

Program Book

主办/Hosted by

东北大学研究生院(党委研究生工作部)/Graduate School of Northeastern University

承办/Organized by

东北大学资源与土木工程学院采矿工程系/Department of Mining Engineering, School of Resources and Civil Engineering, Northeastern University

支持单位/Supported by

辽宁省采矿工程重点实验室/Liaoning Principal Key Lab for Mining Engineering

深部金属矿山安全开采教育部重点实验室/Key Lab of MOE on Safe Mining of Deep Metal Mines

辽宁省抚顺矿业集团西露天矿/ West Open-pit Mine, Liaoning Fushun Mining Group

辽宁沈阳 Shenyang Liaoning

2019年8月 August 2019

Welcome to NEU International Postgraduate Summer School

亲爱的学员：

您好，欢迎参加东北大学研究生院“创客学堂”项目之2019年“面向未来的岩石力学”研究生国际暑期学校！

研究生国际暑期学校是东北大学为进一步营造国际化办学环境、深化国际化办学特色而开设的高水平、创新型、开放性的教育教学项目。欧美亚多个国家的工程院士、知名教授和学者将来校开展学术前沿报告、专题研讨并讲授特色课程。来自全球多个国家的博士研究生将通过暑假学校平台，与不同研究方向的学者进行多种学术交流活动，激发研究灵感，进一步扩大学术视野。

在暑期学校学习期间，学员不仅能获得与顶尖学者进行知识文化交流的机会，还能在主办单位的带领下，参观拥有2800年建城史，素有“一朝发祥地，两代帝王都”之称，并且有着“共和国长子”和“东方鲁尔”的美誉的沈阳城，领略其悠久的文化底蕴。

最后，希望每一位参加本次暑期学校的学员在学习期间，有所思、有所悟、有所得，在沈阳度过一段难忘的时光，并祝大家在未来的学习生活中一切顺利!

东北大学

2019年8月

Dear all,

Hello! Welcome to the 2019 Northeastern University International Postgraduate Summer School -Rock Mechanics for the Future, a project of “School of Creators” hosted by Graduate School of Northeastern University !

International Postgraduate Summer School is a high-level, innovative and open-minded teaching program of Northeastern University aiming to create an international school environment and deepen the characteristics of international education. Engineering scholars and well-known professors from Europe, America and Asia, will deliver reports, featured seminars and lectures. PhD students from all over the world will also conduct a variety of academic workshops with scholars from different research areas through this platform in order to inspire future research and further expand academic horizons.

During the summer school, students will not only have the opportunity to exchange knowledge and culture, but also have the opportunity to visit Shenyang. Having a history of 2,800 years, and cradling the two generations of emperors, the city is also known as the ‘First-born of the Republic’ and the ‘Ruhr of the East’. We hope you enjoy its long-standing cultural heritage.

Finally, we hope that every student who participates in this summer school will have a unforgettable, insightful, and rewarding experience. We sincerely wish everyone all the best in future study life!

Northeastern University
August 2019

一、东北大学简介

东北大学始建于1923年4月26日，是一所具有爱国主义光荣传统的大学。1928年8月至1937年1月， 著名爱国将领张学良将军兼任校长。1949年3月，在东北大学工学院和理学院（部分）的基础上成立沈阳工学院。1950年8月，定名为东北工学院，1993年3月，复名为东北大学，1997年1月原沈阳黄金学院并入东北大学，1998年9月划转为教育部直属高校。学校是国家首批“211工程”和“985工程”重点建设的高校，2017年9月，经国务院批准，进入一流大学建设行列。在90余年的办学历程中，东北大学始终坚持与国家发展和民族复兴同向同行,形成了“自强不息、知行合一”校训精神。历史上，东北大学师生曾是“一二·九”运动的主力和先锋，在建设时期，学校先后研发出国内第一台模拟电子计算机、第一台国产CT、第一块超级钢以及钒钛磁铁矿冶炼新技术、钢铁工业节能理论和技术、控轧控冷技术、混合智能优化控制技术等一大批高水平科研成果，兴办了第一个大学科学园，培育了东软、东网等高新技术　企业，在技术创新、转移和产学研合作方面形成了自己的办学特色。学校面向世界，开放办学，先后与36个国家和地区的235所大学、研究机构建立了长期稳定的合作关系；加大引进海外人才的力度，进一步提升引进国外智力的层次，建立了4个国家学科创新引智基地，每年聘请300多位海外知名专家来校讲学或合作科研。

1 Introduction to NEU

Northeastern University (NEU) was founded on April 26, 1923. In its history of over 90 years, the university has formed its unique spirit: “Striving constantly for improvement and behaving in conformity with truth”. It has gained a number of high-level scientific research achievements, such as the first analog computer, the first domestically produced CT, the first piece of super-steel, the new technology of smelting vanadium titanium magnetite, the energy-saving theory and technology of steel industry, the controlled rolling and controlled cooling technique, and the mixed intelligent optimization control technology. By establishing the first university science park in China, it has established a series of high-tech enterprises, such as the Neusoft Corporation and the Neunn Technology Inc., and formed its unique characteristics in the areas of technological innovation, technological transfer and industry-university cooperation. Opening up to the world, NEU has established long-term academic cooperation with 219 universities and institutions in 36 countries and regions. To bring in more overseas talents of various disciplines, the university has established 4 National Innovation Centers. Besides, more than 300 overseas well-known experts are invited to give lectures or participate in cooperative scientific research projects each year. Every year, NEU sends more than 600 students for overseas study and exchange. NEU has been increasing the number of foreign students and improving the training quality. And in 2017, there are 1,500 international students from 97 countries and regions coming to NEU for academic exchange.

二、研究生国际暑期学校项目简介

研究生国际暑期学校项目（以下简称“暑期学校”）是东北大学研究生“创客学堂”项目之一，是学校为进一步营造国际化办学环境、深化国际化办学特色而开设的高水平、创新型、开放性的教育教学项目。通过举办暑期学校，同各国著名学者开展学术交流与合作，带动相关学科的交叉、融合与发展。

本届暑期学校将从欧美亚多个国家聘请多位著名学者来校进行访问讲学，同时面向国内外招收学员。暑期学校以课程讲授、企业参观、文化体验等内容为重点，实施英文讲学，努力打造国际化学习氛围，创造多元化、多学科、多层次交融的课堂和校园环境。

本届暑期学校为期8天，学习内容与考察活动紧凑而丰富，以“面向未来的岩石力学与工程”为主题展开，致力于学员之间、学员与著名学者之间进行跨文化、多学科的学术交流。暑期学校期间全英文授课，旨在提供一个国际交流、科学研究及相互沟通的学术分享平台。

2 Introduction to International Postgraduate Summer School

The international summer school program is one of the graduate “Chuangke school” programs of Northeastern University. It is a high-level, innovative and open teaching program for further creating an international environment and deepening the international characteristics. It attempts to promote the construct, integration and development in relative disciplines by academic exchange and cooperation.

The summer school will invite international renowned scholars to deliver lectures and enroll PhD students all over the world. Some key elements such as courses, industrial visits, and cultural tours will be key constituent of this summer school. The courses will be provided in English in order to create an international learning atmosphere and to establish a diverse, multi-disciplinary, and multi-level classroom and campus environment.

The summer school will last 8 days. The intra- and extra curriculum activities are very intense and exciting, which designed based on the theme of rock mechanics for the future, to realize the intercultural and multidisciplinary academic communication between students and scholars. The summer school will impart knowledge entirely in English to provide a platform for international exchange, scientific research and mutual communication.

The summer school is expected to gain the following achievements: (1) Members from different cultures, countries and academic learn from each other. (2) Exchange and study with famous scholars. Participants will learn from them and inspired in other ways. Distinguished scholars will lecture and exchange ideas on a relevant topic, its research direction and latest development. (3) Consolidate and improve students’ own research level and ability. (4) Expand international vision and academic horizon.

三、资源与土木工程学院简介

资源与土木工程学院于1995年9月由采矿工程系和矿物工程系组建而成。现有教职工216人，其中院士2人，国家万人计划领军人才2人，特聘教授2人，国家中青年科技创新领军人才1人，长江学者奖励计划特聘教授2人，青年长江学者1人，国家自然科学基金杰出青年科学基金获得者2人，国务院学科评议组成员2人，新世纪百千万人才工程国家级人选3人，教育部新世纪优秀人才10人，博士生导师35人，教授56人，副教授55人，高级实验师10人。在校学生2938名，其中本科生1710人，博士研究生438名，硕士研究生790名。

学院为首批“211工程”、“985工程”重点建设单位，矿业工程学科列入东北大学“双一流”高峰学科建设计划，安全科学与工程学科列入东北大学“双一流”建设卓越进程计划。现有矿业工程、力学、安全科学与工程、地质资源与地质工程、土木工程5个一级学科博士学位授权点，矿业工程、安全科学与工程、地质资源与地质工程、土木工程、测绘科学与技术5个一级学科硕士学位授权点及工程力学、环境工程2个二级学科硕士学位授权点，4个工程硕士招生领域，7个本科专业。采矿工程为国家重点学科，矿物加工工程为国家重点（培育）学科；矿业工程一级学科及工程力学、结构工程、矿产普查与勘探、大地测量学与测量工程等二级学科为辽宁省重点学科。设有矿业工程、力学、安全科学与工程、地质资源与地质工程4个博士后流动站。

学院建有教育部和国家外国专家局深部工程岩体力学与安全学科创新引智基地（简称“111计划”）、深部金属矿山安全开采教育部重点实验室、辽宁省采矿工程重点实验室、辽宁省矿物加工技术重点实验室、辽宁省非煤矿山安全技术及工程重点实验室、辽宁省难采选铁矿石高效开发利用技术工程实验室、辽宁省矿物材料工程技术研究中心、辽宁省高新过滤材料工程技术研究中心、东北大学滤料检测中心（具有国家环保检测资质）、朝阳东大矿冶研究院、东北大学智慧矿山研究中心、东北大学非常规地质体力学国际研究中心、中加深部开采创新研究中心。与国外30余所大学、科研机构建立了密切的学术交流与合作关系。

3 Introduction to School of Resources and Civil Engineering

School of Resources and Civil Engineering was set up in September 1995 based on two well-known departments, Department of Mining Engineering and Department of Mineral Engineering in Northeastern University. There are 197 faculty members in school, including 3 distinguished professors of the “Cheung Kong Scholars Program”, 2 members of the “Discipline Evaluation Group of the State Council”, 2 national candidates of the “New Centaury National Hundred, Thousand and Ten Thousand Talent Project”, 11 members of the “Education Ministry's New Century Excellent Talents”, 25 doctoral supervisors, 47 professors, 53 associate professors and 10 senior experimentalists. At present, the school has 2,257 students, including 1,446 undergraduates, 418 Ph.D. candidates and 393 master students.

It is one of the first “211 Project” and “985 Project” universities. There are 5 grade-1 disciplines (Mining Engineering, Mechanics, Safety Science and Engineering, Geological Resources and Geological Engineering, and Civil Engineering) for doctoral degree authorization subjects, 5 grade-1 disciplines (Mining Engineering, Safety Science and Engineering, Geological Resources and Geological Engineering, Civil Engineering and Surveying and Mapping Science and Technology) for master's degree authorization subjects, and 2 grade-2 disciplines (Engineering Mechanics, and Environmental Engineering) for master's degree authorization subjects, 4 enrollment fields for engineering master, and 7 undergraduate majors. Among them, Mining Engineering is the national key discipline, Mineral Processing Engineering is the national key discipline (cultivation), 1 grade-1 discipline (Mining Engineering) and 4 grade-2 disciplines (Engineering Mechanics, Structural Engineering, Mineral Resource Prospecting and Exploration, and Geodesy and Survey Engineering) are the Liaoning provincial key discipline; 4 disciplines (Mining Engineering, Mechanics, Safety Science and Engineering and Geological Resources and Geological Engineering) are the postdoctoral research stations.

Several research bases (including key laboratory of the ministry of education on safety mining of deep metal mines, Liaoning provincial key laboratory of mining engineering, Liaoning provincial technology research center of mineral materials engineering, intelligent mine research center of Northeastern University, etc.) were established. School of Resources and Civil Engineering has established intense relationship of academic exchange and cooperation with more than 30 universities and institutions.

四、岩石破裂与失稳研究所简介

东北大学岩石破裂与失稳研究所的前身是1995年由唐春安教授发起成立的岩石破裂与失稳研究中心（Center for Rock Instability and Seismicity Research，简称CRISR），其宗旨就是研究探索岩石乃至其它脆性材料在承载情况下的变形破裂特性及由此诱发的失稳破坏现象，为采矿工程工程设计、灾害预测、预警及防控提供更加可靠的理论依据与技术支撑，并结合工程现场实际，提出有效的灾害防治技术。目前团队成员共14人，其中包括教授5名：朱万成、杨天鸿、徐涛、李连崇、于庆磊；副教授3名：柳小波、魏晨慧、刘洪磊；讲师3名：张鹏海、牛雷雷、程关文；博士后2名：李帅、刘溪鸽；实验师1名：侯晨。团队成员年富力强，包括国家杰出青年科学基金获得者/教育部“长江学者”奖励计划特聘教授1名，“万人计划”科技创新领军人才1名，新世纪百千万人才工程国家级人选2人，国务院政府特殊津贴获得者2人，中国青年科技奖获得者1人，教育部新世纪优秀人才2人。团队成员近五年承担各类科研项目80余项，其中国家杰出青年科学基金项目1项、科技部重点研发项目课题2项、973课题2项、科技部国际合作计划项目1项、国家自然科学基金联合基金1项、国家自然科学基金优秀青年科学基金1项、国家自然科学基金项目30余项；出版学术专著和规划教材10余部，发表学术论文300余篇，其中SCI收录论文100余篇，EI收录200余篇。获得国家科技进步奖二等奖1项，获省部级二等以上奖励20余项。与澳大利亚西澳大学、美国宾州州立大学、韩国首尔国立大学、法国斯特拉斯堡大学、德国弗莱贝格工业大学、英国伦敦大学学院建立了稳定长期的合作关系，开展了包括合作研究、人员互访、学术交流、研究生联合培养等科研合作。

4 Introduction to Center for Rock Instability and Seismicity Research (CRISR)

Center for Rock Instability and Seismicity Research, established in 1995, aims to investigate the characteristics of deformation and fracture of rock-like brittle materials and the induced instability phenomena. It is of great significance to provide reliable theoretical basis for prediction, early-warning and prevention of the disaster in mining engineering, and further develop an effective disaster control technology based on the in-situ conditions. There are 14 faculty members in the research group, in which 5 professors (Wancheng Zhu, Tianhong Yang, Tao Xu, Lianchong Li, Qinglei Yu), 3 associate professors (Xiaobo Liu, Chenhui Wei, Honglei Liu), 3 lecturers (Penghai Zhang, Leilei Niu, Guangwen Cheng), 2 postdoctors (Shuai Li, Xige Liu), and 1 laboratory technician (Chen Hou). All of them are young and talented, including 1 “Cheung Kong Scholar” Chair Professor, 1 winner of the National Science Foundation for Distinguished Young Scholars, Leading Talents of Science and Technology Innovation in Ten-thousand Talents Program, 2 members of National level experts of the “New Century National Hundred, Thousand, and Ten Thousand Talent Project in New Century of China”, 2 winners of receiving the State Council Special Allowance, 1 member granted the China Youth Science and Technology Award, and 2 members supported by Program for New Century Excellent Talents in University of China. In the last five years, the research group has accomplished over 80 projects, including 1 project of National Science Foundation for Distinguished Young Scholars of China, 2 project of National Key Research and Development Program of China, 2 projects of National Basic Research Program (‘973 program’), 1 project of International Science and Technology Cooperation Programme supported by Ministry of Science and Technology China, 1 project of Joint Funds of the National Science Foundation of China, 1 project of National Science Foundation for Excellent Young Scholars, and more than 30 other research projects supported by National Science Foundation of China. The members of the CRISR are the co-author of over 10 books and 300 journal papers. The center earned numerous awards and honors such as one second-class National Scientific and Technological Progress Award of China in 2004, over 20 Natural Science Awards or Scientific and Technological Progress Awards (either at ministerial and provincial level). The CRISR has established long-term corporation relationships with relevant research institutions, including University of Western Australia (Australia), Penn State University (USA), Seoul National University (Korea), University of Strasbourg (France) and TU Bergakademie Freiberg (Germany), University College London (UK), based on which, many scientific cooperation, particularly with respect to the exchange visits, academic communication, cooperative training projects, international collaborative program application et al., are conducted conveniently.

五、暑假学校日程安排/ Agenda of the Summer School

日期/Date	时间/Time	活动安排/Activities	地点/Venue
2019/8/09（Friday）	全天/All day	专家、学员报到/ Registration	国际交流中心/NEU Intl. Hotel
	18:00-20:00	晚　餐/Dinner	回民餐厅二楼/Huimin Restaurant
2019/8/10（Sunday）	8:30-10:00	开学典礼/Opening Ceremony	综合楼822会议室 Rm 822, Administrative Building
	10:00-10:20	合　影/Group Photo	综合楼北广场 North Square, Administrative Building
	10:20-10:50	Keynote 1(Philip Meredith)	综合楼822会议室 Rm 822, Administrative Building
	10:50-11:20	Keynote 2(Lan-ru Jing)	
	10:20-11:50	Keynote 3(Tommy Mitchell)	
	12:00-14:00	午　餐/Lunch	回民餐厅二楼/Huimin Restaurant
	14:00--15:30	Invited Talk /Alfonso Rodribguez-Dono	大成教学馆105 Rm 105, Dacheng Teaching Building
	15:40-17:00	参观东北大学校史馆 Visit to NEU History Museum	汉卿会堂/ Hanqing Auditorium
	18:00-20:00	晚　餐/Dinner	回民餐厅二楼/Huimin Restaurant
2019/8/11（Sunday）	8:30-10:00	Invited Talk / Philip Meredith	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶　歇/Coffee Break（15 min）		
	10:15-11:45	Invited Talk / Lan-Ru Jing	大成教学馆105 Rm 105, Dacheng Teaching Building
	12:00-14:00	午　餐/Lunch	回民餐厅二楼/Huimin Restaurant
	14:00-15:30	Invited Talk / Yi-Lin Gui	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶　歇/Coffee Break（15 min）		
	15:45-17:15	Invited Talk / Sanchez-Roa	大成教学馆105 Rm 105, Dacheng Teaching Building
	18:00-20:00	晚　餐/Dinner	回民餐厅二楼/Huimin Restaurant
2019/8/12（Monday）	8:30-10:00	Invited Talk / Heinz Konietzky	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶　歇/Coffee Break（15 min）		
	10:15-11:45	Invited Talk / Tommy Mitchell	大成教学馆105 Rm 105, Dacheng Teaching Building
	12:00-14:00	午　餐/Lunch	回民餐厅二楼/Huimin Restaurant
	14:00-15:30	Invited Talk / Hai-Na Chen	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶　歇/Coffee Break（15 min）		
	15:45-17:00	Invited Talk / Tao XU	大成教学馆105 Rm 105, Dacheng Teaching Building
	18:00-20:00	晚　餐/Dinner	回民餐厅二楼/Huimin Restaurant

Rock Mechanics for the Future

2019 Northeastern University International Postgraduate Summer School

日期/Date	时间/Time	活动安排/Activities	地点/Venue
2019/8/13 （星期二）	8:30-10:00	工业体验：参观中国工业博物馆/Visit to China Industrial Museum	
	11:30-12:30	午 餐/Lunch	回民餐厅二楼/Huimin Restaurant
	13:00-17:30	现场参观露天矿/Field Trip to Open-pit Mine	
	18:00-20:00	晚 餐/Dinner	Restaurant Downtown
2019/8/14 （星期三）	8:30-10:00	Invited Talk / Vaughan Griffiths	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶 歇/Coffee Break（15 min）		
	10:15-11:45	Invited Talk /Kimihiro HASHIBA	大成教学馆105 Rm 105, Dacheng Teaching Building
	12:00-14:00	午 餐/Lunch	回民餐厅二楼/Huimin Restaurant
	14:00-15:30	Invited Talk / Wan-Cheng ZHU	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶 歇/Coffee Break（15 min）		
	15:45-17:00	参观深部金属矿山安全开采教育部重点实验室 Visit to Key Laboratory of Ministry of Education on Safe Mining of Deep Metal Mines	
	18:00-20:00	晚 餐/Dinner	回民餐厅二楼/Huimin Restaurant
2019/8/15 （星期四）	8:30-10:00	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶 歇/Coffee Break（10 min）		
	10:10-11:30	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	12:00-14:00	午 餐	回民餐厅二楼/Huimin Restaurant
	14:00-15:30	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶 歇/Coffee Break（10 min）		
	15:40-17:00	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	18:00-20:00	晚 餐/Dinner	回民餐厅二楼/Huimin Restaurant
2019/8/16 （星期五）	8:30-10:00	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	茶 歇/Coffee Break（10 min）		
	10:10-11:40	研究生论坛/ Postgraduate forum	大成教学馆105 Rm 105, Dacheng Teaching Building
	12:00-14:00	午 餐 /Lunch	回民餐厅二楼/Huimin Restaurant
	14:00-16:00	结业典礼 Closing Ceremony	综合楼822会议室 Rm 822, Administrative Building
	17:30-20:00	晚 餐	回民餐厅二楼/Huimin Restaurant

六、授课教师简介/ Lecturers for Summer School

名师堂—MASTERS FORUM

Prof. Philip Meredith

Professor of Rock and Ice Physics Laboratory, the Department of Earth Sciences, University College London, UK. Prof. Meredith has made fundamental and seminal contributions in experimental rock physics, in relation to a diversity of basic and applied problems in crustal dynamics, natural energy resources and volcanology. A major theme of Meredith's research for over three decades has been the time-dependent behaviour of brittle rock deformation. European Geosciences Union (EGU) awarded Prof. Meredith Louis Néel medal in 2016 for his contributions in rock physics and geomechanics and for his role in stimulating international collaboration and interdisciplinary research. Professor Meredith has published over 150 papers in journals such as Nature, Science, Geology, Earth and Planetary Science Letters, Journal of Geophysical Research-Solid Earth.

Prof. Heinz Konietzky

Chair Professor for Rock Mechanics and Director of the Geotechnical Institute at the TU Bergakademie Freiberg, Germany. Prof. Konietzky has longstanding experience in using continuum and discontinuum mechanical approaches to model HTM-coupled problems in geotechnics, but also to some extent in material sciences and process engineering. He is responsible for rock mechanic laboratory, where we perform static and dynamic HTM-coupled tests on rock specimen. Besides fundamental research he is also involved in dimensional and back analysis for big geotechnical projects, like radioactive waste storage facilities, tunnels, mines, foundations or deep geothermal projects (EGS). International Society for Rock Mechanics (ISRM) awarded Konietzky the "2016 ISRM Franklin Lecturer" in the 2016 European conference, was the first to receive the honorary title of German scholars.

Prof. Lanru Jing

Managing editor of International Journal of Rock Mechanics and Mining Sciences, Associate Professor, Engineering Geology & Geophysics Research Group, Department of Land & Water Resources Engineering, Royal Institute of Technology (KTH). His research interests cover mathematical models and computer codes in computational geomechanics for coupled thermo-hydro-mechanical processes in fractured porous media, and contaminant transport, experimental and theoretical studies of thermo-hydro-mechanical behaviour of rock-soil/clay interfaces for geotechnical engineering problems, design, performance and safety assessments of underground nuclear waste repositories, gas/oil/hot water storage caverns and geothermal reservoir fields, and numerical modelling of granular material behaviours.

Prof. Vaughan Griffiths

Professor of Colorado School of Mines, U.S.A. Griffiths received his Bachelor of Science from University of Manchester, his Master of Science from University of California, Berkeley, his Ph.D. from University of Manchester. He is an Editor of Computers and Geotechnics, Fellow of the American Society of Civil Engineers, Fellow of the Institution of Civil Engineers (London), British Chartered Engineer, President, ASCE, Colorado Section (2000-2001), and Partner Investigator of the Centre of Excellence for Geotechnical Science and Engineering, University of Newcastle, Australia since 2011. Griffiths' research interests focus on Petroleum geomechanics, Probabilistic geotechnical engineering, and Finite element software development. He has authored textbooks "Programming the finite element method", "Numerical methods for engineers", and over 300 journal papers.

名师堂—MASTERS FORUM

Prof. Wancheng Zhu

Head of the Department of Mining Engineering, School of Resource and Civil Engineering at the Northeastern University, specializing in rock mechanic and mining engineering. Professor Zhu is an associate editor of International Journal of Rock Mechanics and Mining Sciences. Prof. Zhu was granted by Program for New Century Excellent Talents in University of China (NCET), National level expert of the "New Century National Hundred, Thousand, Ten Thousand Talent Project in New Century of China", the Young Teacher Award, the Excellent Youth Science and Technology Fund by National Science Foundation of China (NSFC), the China Youth Science and Technology Award, the Endeavour Australia Cheung Kong Research Fellow, the National Science Foundation for Distinguished Young Scholars of China and "Cheung Kong Scholar" Chair Professor.

Prof. Tom M. Mitchell

Reader of Rock and Ice Physics Laboratory, the Department of Earth Sciences, University College London, UK. Deputy editor of the Journal of Geophysical Research-Solid Earth. Professor Mitchell has long been engaged in the research of rock experimental deformation mechanism, and has mastered the structure and performance of strike-slip fault zones with different scales. At the same time, he has also conducted in-depth studies on the development and evolution of fault zones and seismic properties. He has ever held a post-doctoral research assistant position at Hiroshima University and Ruhr-University Bochum. He also conducted his visiting research at Brown University, University of Otago, and Pontifical Catholic University of Chile.

Dr. Hanbing Bian

Associate professor in the laboratory of microstructure and material mechanics, Lille University, France. His research focuses on the mechanical behavior characterization of geo-materials, especially for their multi-physically coupling effects and the numerical simulations, as the member of AFM and AUGC, he is also the review of more than 10 international journals, participated in more than 10 scientific research projects, including the cooperation with CEA, TOTAL and ANDRA, published more than 20 scientific reports and more than 70 journal papers.

Dr. Kimihiro HASHIBA

Kimihiro Hashiba, Associate Professor at the University of Tokyo, Japan. Hashiba received his B. Eng., M. Eng. And Dr. Eng. in Geosystem Engineering from the University of Tokyo. He conducted research on the high level radioactive waste disposal as a postdoctoral fellow from 2005 to 2007 at the Mizunami Underground Research Laboratory of Japan Atomic Energy Agency. He came back to the University of Tokyo as an assistant professor in 2007 and became an associate professor in 2016. His research focuses on mining machinery and rock engineering. He has undertaken experimental and analytical researches on the percussion drilling for the improvement of hydraulic rock drills. He has developed new test methods to investigate the time-dependent behavior of rock and proposed constitutive equations based on the theory of nonlinear viscoelasticity.

名师堂—MASTERS FORUM

Dr. Alfonso Rodriguez-Dono

Lecturer at the Technical University of Catalonia (UPC) in Spain and a post-doctoral researcher in Rock Mechanics and Numerical Modelling at CSIC –the biggest public research centre of Spain and the third in Europe– and as. He is a Mining Engineer from the University of Vigo (Spain), International Master in Sustainable Exploitation of Mineral Resources by the Polytechnic University of Madrid (UPM, Spain) and PhD specialized in Rock Mechanics by the University of Vigo. His main current lines of research include development, simulation and implementation of behavioural models of geological media in the finite element method (FEM) code CODE_BRIGHT; rock mass post-failure behaviour applied to tunnelling design; and the FEBEX (Full-scale Engineered Barriers Experiment in Crystalline Host Rock) project.

Dr. Yilin Gui

Dr. Gui is Lecturer in Geotechnical Engineering in Newcastle University, UK. Dr Gui is also the Peer Mentor Coordinator of the Civil Engineering program and the Deputy Degree Program Director for Master of Science in Geotechnical Engineering and Engineering Geology. His research interests are focused on rock and soil mechanics, computational and constitutive modelling of geomaterials and Geoenvironmental Engineering and other related areas. His current research projects include THM in rock mechanics, environmental impact on soil structures and application of computation methods in Geotechnics.

Dr. Catalina Sánchez-Roa

Dr Sanchez-Roa is a Postdoctoral Research Associate in the Department of Earth Sciences at University College London, UK. She is part of the Science for Clean Energy team, a European-wide research consortium assessing the risks of clean energy operations. Her current research focuses on the study of geothermal energy in Iceland and The UK (Cornwall) by combining field, experimental and modelling approaches. She uses experimental rock mechanics and mineral analysis techniques to understand the response of fracture zones to fluid flow, and the evolution of physical properties of reservoir rocks when subject to changes in pressure, temperature and fluid chemistry.

Mrs. Haina Chen-Konietzky

Lecturer at the Technical University of Catalonia (UPC) in Spain and a post-doctoral researcher in Rock Mechanics and Numerical Modelling at CSIC –the biggest public research centre of Spain and the third in Europe– and as. He is a Mining Engineer from the University of Vigo (Spain), International Master in Sustainable Exploitation of Mineral Resources by the Polytechnic University of Madrid (UPM, Spain) and PhD specialized in Rock Mechanics by the University of Vigo. His main current lines of research include development, simulation and implementation of behavioural models of geological media in the finite element method (FEM) code CODE_BRIGHT; rock mass post-failure behaviour applied to tunnelling design; and the FEBEX (Full-scale Engineered Barriers Experiment in Crystalline Host Rock) project.

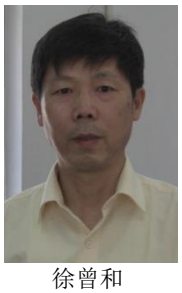
七、学员列表/ List of PhD Students

No	Chinese Name	English Name	Affiliation
1		Ashley, Stanton-Yonge Sesnic	University College London (英国伦敦大学学院)
2		Suresh Kadinappuli Hewage	University of Melbourne (澳大利亚墨尔本大学)
3		K.M. Adheesha Bandara	Monash University (澳大利亚莫纳什大学)
4	宋正阳	ZhengYang Song	Technische Universität Bergakademie Freiberg(弗莱贝格工业大学)
5	宋 飞	Fei Song	Polytechnic University of Catalonia (西班牙加泰罗尼亚理工大学)
6	李晓峰	XiaoFeng Li	University of Chinese Academy of Sciences（中国科学院大学）
7	杨福见	FuJian Yang	University of Chinese Academy of Sciences（中国科学院大学）
8	郑 兴	Xing Zheng	Nanjing University（南京大学）
9	杨跃宗	ZongYue Yang	Shanghai Jiao Tong University（上海交通大学）
10	富 锰	Meng Fu	Tianjin University（天津大学）
11	陈雨雪	YuXue Chen	Shandong University（山东大学）
12	周 宇	Yu Zhou	Jilin University（吉林大学）
13	李孟熠	MengYu Li	Wuhan University（武汉大学）
14	聂铮玥	ZhengYue Nie	National University of Defense Technology （国防科技大学）
15	蔡 鑫	Xing Cai	Central South University（中南大学）
16	梁丽莎	LiSha Liang	Central South University（中南大学）
17	唐劲舟	JingZhou Tang	China University of Mining and Technology（中国矿业大学）
18	刘允秋	YunQiu Liu	China University of Mining and Technology（中国矿业大学）
19	王子辉	ZiHui Wang	China University of Mining and Technology, Beijing（中国矿业大学(北京)）
20	李良晖	LiangHui Li	China University of Mining and Technology, Beijing（中国矿业大学(北京)）
21	陈大鹏	DaPeng Chen	University Of Science & Technology Beijing（北京科技大学）
22	王允腾	YunTeng Wang	Chongqing University（重庆大学）
23	张志恩	ZhiEn Zhang	Beijing Jiaotong University（北京交通大学）

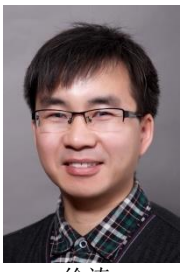
24	范德源	DeYuan Fan	Shandong University of Science and Technology(山东科技大学)
25	高经纬	JingWei Gao	Beijing University of Technology （北京工业大学）
26	吴 奎	Kui Wu	Xi'an University of Architecture and Technology(西安建筑科大)
27	武鹏飞	WuPeng Fei	Liaoning Technical University（辽宁工程技术大学）
28	孙文吉斌	WenJiBing Sun	Guizhou University（贵州大学）
29	卢志国	ZhiGuo Lu	China Coal Research Institute CCRI （煤炭科学研究总院）
30	刘 镐	Gao Liu	Guizhou University（贵州大学）
31	关 凯	Kai Guan	Northeastern University (东北大学)
32	于永军	YongJun Yu	Northeastern University (东北大学)
33	张秀凤	XiuFeng Zhang	Northeastern University (东北大学)
34	闫保旭	BaoXu Yan	Northeastern University (东北大学)
35	赵 永	Yong Zhao	Northeastern University (东北大学)
36	邓文学	WenXue Deng	Northeastern University (东北大学)
37	董 鑫	Xin Dong	Northeastern University (东北大学)
38	高 源	Yuan Gao	Northeastern University (东北大学)
39	孙东东	DongDong Sun	Northeastern University (东北大学)
40	曹永胜	YongSheng Cao	Northeastern University (东北大学)
41	勒治华	ZhiHua Le	Northeastern University (东北大学)
42	陈崇枫	ChongFeng Chen	Northeastern University (东北大学)
43	周广磊	GuangLei Zhou	Northeastern University (东北大学)
44	付腾飞	TengFei Fu	Northeastern University (东北大学)
45	于显杨	XianYang Yu	Northeastern University (东北大学)
46	袁 阳	Yang Yuan	Northeastern University (东北大学)
47	牟文强	WenQiang Mou	Northeastern University (东北大学)
48	翟明洋	MingYang Zhai	Northeastern University (东北大学)
49	柴 璐	Lu Chai	Northeastern University (东北大学)

八、系教师简介/ Faculty Members in the Department of Mining Engineering


朱万成
Wanchen Zhu

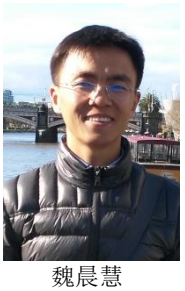

徐曾和
Zenghe Xu

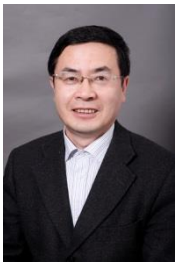

杨天鸿
Tianhong Yang


徐涛
Tao Xu


李连崇
Lianchong Li


于庆磊
Qinglei Yu


魏晨慧
Chenhui Wei


任凤玉
Fengyu Ren


王青
Qin Wang


顾晓薇
Xiaowei Gu


赵兴东
Xingdong Zhao


孙效玉
Xiaoyu Sun


邢军
Jun Xing

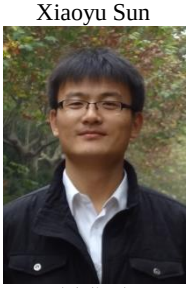

邱景平
JingPing Qiu


陈庆凯
Qingkai Chen


姜元勇
Yuanyong Jiang


杨晓明
Xiaoming Yang


柳小波
Xiaobo Liu


刘洪磊
Honglei Liu

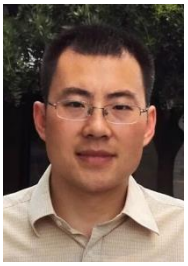

陈文林
Wenlin Chen

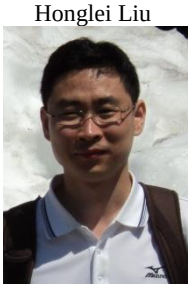

韩智勇
Zhiyong Han


曹建立
Jianli Cao

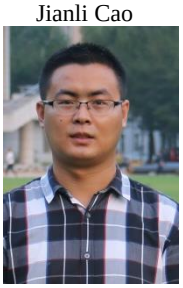

孙晓刚
Xiaogang Sun


丁航行
Hangxing Din


何荣兴
Rongxing He


张亚兵
Yabing Zhang


胥孝川
Xiaochuan Xu


牛雷雷
Leilei Niu


张鹏海
Penghai Zhang


程关文
Guanwen Chen


侯晨
Chen Hou


刘溪鸽
Xige Liu


李帅
Shuai Li

天气情况 **(Weather in Shenyang)**

08月07日 星期三	08月08日 星期四	08月09日 星期五	08月10日 星期六	08月11日 星期日
中雨 21~27℃	多云 20~30℃	晴 21~34℃	晴 20~34℃	多云 24~34℃
西南风 3-4级转4-5级	东南风 3-4级转4-5级	西南风 3-4级转4-5级	东北风 3-4级转4-5级	南风 3-4级转4-5级
08月12日 星期一	**08月13日 星期二**	**08月14日 星期三**	**08月15日 星期四**	**08月16日 星期五**
雷阵雨 24~32℃	雷阵雨 24~31℃	暴雨 23~26℃	多云 19~28℃	晴 16~29℃
东风 3-4级转4-5级	南风 3-4级转4-5级	东南风 3-4级转4-5级	东北风 3-4级转4-5级	东北风 3-4级转4-5级