

박사학위 전공리스트

院系	学科	研究方向
仪器科学与工程学院 School of Instrumentation Science and Engineering	0804 仪器科学与技术 Instrument Science and Technology	1. 超精密测量技术与仪器 Ultra Precision Measurement Technology and Instruments 2. 激光测量与探测技术 Laser Measurement and Detection Technology 3. 现代显微技术与仪器 Modern Microscopic Technology and Instruments 4. 视觉与光电测量技术 Visual and Photoelectric Measurement Technology 5. 精密电磁测量技术与仪器 Precision Electromagnetic Measurement Technology and Instruments 6. 先进声光材料及仪器 Advanced Acousto-optic Materials and Instruments 7. 辐射测温与热物性测试技术 Technology of Radiation Temperature Measurement and Thermo-physical Properties Measurement 8. 导航仪器与系统技术 Navigation Instruments and System Technology 9. 生物信息探测与医疗仪器 Bioinformatics Detection and Medical Instruments 10. 超精密控制技术与仪器 Ultra-Precision Control Technology and Instruments
电气工程及其自动化学院 School of Electrical Engineering and Automation	0808 电气工程 Electrical Engineering	1. 电机与电器 Motor and Electrical Appliances 2. 电力电子与电力传动 Power Electronics and Power Transmission 3. 电力系统及其自动化 Power System and Automation 4. 电工理论与新技术 Electrician Theory and New Technique
能源科学与工程学院	0807 动力工程及工程热物理	1. 工程热物理 Engineering Thermo-physics 2. 热能工程 Thermal Engineering

院系	学科	研究方向
School of Energy Science and Engineering	Power Engineering and Engineering Thermo-physics	3. 动力机械及工程 Power Machinery and Engineering 4. 流体机械及工程 Fluid Machinery and Engineering 5. 制冷及低温工程 Refrigeration and Cryogenic Engineering
计算机科学与技术学院 School of Computer Science and Technology	0812 计算机科学与技术 Computer Science and Technology	1. 高可信高性能计算机体系结构 High Reliable High Performance Computer Architecture 2. 移动计算与嵌入式计算 Mobile Computing and Embedded Computing 3. 计算机网络与信息安全 Computer Network and Information Security 4. 计算理论 Computing Theory 5. 海量数据计算 Huge Amounts of Data Calculation 6. 服务计算 Service Computing 7. 生物计算与生物信息学 Biological Computing and Bioinformatics 8. 智能人机交互与数字媒体技术 Intelligent Human-Computer Interaction and Digital Media Technology 9. 人工智能与模式识别 Artificial Intelligence and Pattern Recognition 10. 多语言与中文信息处理 Multiple Languages and Chinese Information Processing 11. 社会计算 Social Computing
	0835 软件工程 Software Engineering	1. 软件服务工程 Software Service Engineering 2. 软件工程技术及软件体系结构 Software Engineering and Software Architecture 3. 软件可信性与可靠性 Software Trustworthiness and Reliability 4. 智能软件理论与机器学习 Intelligent Software Theory and Machine Learning 5. 商务智能与数据挖掘 Business Intelligence and Data Mining

院系	学科	研究方向
		6. 领域软件工程 Field of Software Engineering
航天学院 School of Astronautics	0811 控制科学与工程 Control Science and Engineering	1. 导航制导与控制 Navigation, Guidance and Control 2. 控制理论与控制工程 Control Theory and Control Engineering 3. 检测技术与自动化装置 Detection Technology and Automatic Equipment 4. 机器人与智能系统 Robots and Intelligent Systems 5. 系统工程与仿真 Systems Engineering and Simulation
	0801 力学 Mechanics	1. 疲劳与断裂力学 Fatigue and Fracture Mechanics 2. 结构优化设计 Structural Optimization Design 3. 微细观力学 Micromechanics 4. 固体动力学 Solid Dynamics 5. 热/力/电/化学多场耦合力学 Thermo/Mechanical/Electrical/Chemical Multi-field Coupling Mechanics 6. 极端环境下材料与结构力学 Material and Structural Mechanics in Extreme Environment 7. 先进复合材料及其结构轻量化理论 Advanced Composites and its Structural Lightweight Theory 8. 复合材料及其结构力学 Composite Materials and its Structural Mechanics 9. 复合结构可靠性分析与设计 Reliability Analysis and Design of Composite Structures 10. 智能材料与结构力学 Intelligent Materials and Structural Mechanics 11. 航天航空结构力学 Aerospace Structural Mechanics 12. 材料/结构/功能一体化设计 Material/ Structure/Function Integrated Design 13. 结构动力学及振动控制 Structural Dynamics and Vibration Control

院系	学科	研究方向
		14. 非线性动力学 Nonlinear Dynamics 15. 流体动力学 Hydrodynamics 16. 动力学反问题与故障诊断 Dynamics Inverse Problem and Fault Diagnosis
	0825 航空宇航科学与技术 Aeronautical and Astronautical Science and Technology	1. 飞行器系统设计 Aircraft System Design 2. 飞行动力学与控制 Flight Dynamics and Control 3. 飞行器智能自主导航、制导与控制 Aircraft Intelligent Autonomous Navigation, Guidance and Control 4. 深空飞行与着陆返回 Deep Space Flight and Landing Return 5. 飞行器一体化设计与仿真 Integrated Design and Simulation of Aircraft 6. 复杂航天器动力学与控制 Dynamics and Control of Complex Spacecraft 7. 航天器空间环境效应及其对策 Space Environmental Effects of Spacecraft and its Countermeasures 8. 空天飞行器结构与防护 Structure and Protection of Aerospace Vehicles
航天学院 School of Astronautics	0803 光学工程 Optical Engineering	1. 空间光学信息获取技术与处理 Space Optical Information Acquisition Technology and Processing 2. 光学制导与仿真 Optical Guidance and Simulation 3. 现代光电测试技术 Modern Photoelectric Testing Technology 4. 目标探测与识别 Target Detection and Recognition 5. 光学图像处理与评价 Optical Image Processing and Evaluation 6. 激光空间通信 Space Laser Communication 7. 激光雷达与激光遥感 Laser Radar and Laser Remote Sensing

院系	学科	研究方向
	0809 电子科学与技术 Electronics Science and Technology	8. 光电子器件与技术 High Power Laser and Tunable Laser 9. 非线性光学技术 Nonlinear Optical Technology 10. 高功率激光与可调谐激光 Photoelectric Device and Technology 1. 激光空间信息及对抗 Laser Spatial Information and Confrontation 2. 可调谐激光、短波长激光 Tunable Laser Short Wavelength Laser 3. 非线性光学、量子光学技术与应用 Nonlinear Optics Quantum Optics Technology and Application 4. 光电子器件与技术 Photoelectric Device and Technology 5. 激光介质光谱与激光机制研究 Laser Spectrum and The Mechanism of Laser Medium 6. 微纳器件与系统 Micro-Nano Devices and Systems 7. 集成电路设计与应用 Integrated Circuits Design and Application 8. 集成传感器技术 Integrated Sensor Technology 9. 先进SoC与集成电路可靠性设计 Advanced SoC and Reliability Design of Integrated Circuits 10. 微波传播理论与天线系统 Microwave Transmission Theory and Antenna System
机电工程学院 School of Mechatronics Engineering	0802 机械工程 Mechanical Engineering	1. 精密和超精密加工技术 Precision and Ultra-Precision Processing Technology 2. 微纳制造技术 Micro-Nano Manufacturing Techniques 3. 特种加工和特殊材料加工技术 Special Processing and Special Material Processing Technology 4. 现代设计理论与方法 Modern Design Theory and Method

院系	学科	研究方向
		5. 数字化设计与制造技术 Digital Design and Manufacturing Technology 6. 机电系统控制及自动化 Mechanical and Electrical System Control and Automation 7. 现代传感与测试技术 Modern Sensor and Testing Technology 8. 流体控制及自动化 Fluid Flow Control and Automation 9. 机器人技术与系统 Robot Technology and System 10. 特种传动智能设计及控制 Special Transmission Intelligent Design and Control 11. 摩擦学基础理论及应用技术 Tribology Basic Theory and Application Technology 12. 工程机械结构设计与分析 Engineering Structure Design and Analysis 13. 振动与噪声控制 Vibration and Noise Control 14. 生物机械工程 Biomechanical Engineering 15. 生产系统自动化技术 Production System Automation Technology 16. 生产系统工程管理 Manufacturing System Engineering Management 17. 车辆动力学及控制 Vehicle Dynamics and Control 18. 车辆先进制造技术 Vehicles Advanced Manufacturing Technology 19. 车辆现代设计理论及方法 Modern Design Theory and Method Of Vehicle 20. 车辆电子与控制 Vehicle Electronics and Control
机电工程学院 School of Mechatronics Engineering	0825 航空宇航科学与技术 Aeronautical and Astronautical Science and Technology	1. 宇航空间机构及控制 Space Structure and Control 2. 航空宇航高效精密制造技术 Aerospace High Precision Manufacturing Technology 3. 空间机器人技术 Space Robot Technology

院系	学科	研究方向
		4. 宇航特种加工技术 Space of Special Processing Technology 5. 飞行器数字化制造技术 Aircraft Digital Manufacturing Technology 6. 飞行器地面模拟与测试技术 Aircraft Ground Simulation and Testing Technology
材料科学与工程学院 School of Materials Science and Engineering	0805 材料科学与工程 Materials Science and Engineering	1. 智能材料与器件 Intelligent Materials and Devices 2. 空间材料及其环境效应 Space Material and its Environmental Effects 3. 光电信息科学与工程 Photoelectric Information Science and Engineering 4. 先进金属及陶瓷材料 Advanced Metals and Ceramic Materials 5. 凝固科学与工程 Solidification Science and Engineering 6. 塑性加工科学与工程 Plastic Processing Science and Engineering 7. 材料连接科学与工程 Material Connection Science and Engineering
经济与管理学院 School of Management	1201 管理科学与工程 Management Science and Engineering	1. 管理信息系统与运作管理 Management Information Systems and Operation Management 2. 系统工程与优化 E System Engineering and Optimization 3. 大数据与商务分析 Big Data and Business Analysis 4. 电子健康 Electronic Health
	1202 工商管理 Business Administration	1. 企业战略管理理论与方法 Enterprise Strategic Management Theory and Method 2. 组织与人力资源理论与方法 Organization and Human Resource Theory and Method 3. 市场营销理论与方法 Marketing Theory and Method

院系	学科	研究方向
		4. 会计政策与会计信息披露 Accounting Policies and Accounting Information Disclosure 5. 创新理论、方法与政策 Innovation theory, method and policy 6. 投融资理论与金融工程 Investment and Financing Theory and Financial Engineering 7. 可持续发展理论、方法与政策 Sustainable Development Theory, Method and Policy 8. 管理控制、公司治理与企业价值 Management Corporate Governance and Corporate Value
经济与管理学院 School of Management	120401 行政管理 Public Administration	1. 公共政策分析与行为仿真 Public Policy Analysis and Behavior Simulation 2. 城市与政府治理创新 Urban and Government Governance Innovation 3. 公共政策影响评估 Public Policy Impact Assessment 4. 基础设施经济与管理 Infrastructure Economy and Management
人文社科与法学学院 School of Humanities, Social Science and Law	0303 社会学 Sociology	1. 工业社会学 Industrial Sociology 2. 虚拟社会人类学 Virtual Social Anthropology 3. 社会建设与底层阶级 Social Construction and The Underclass 4. 量化社会研究方法 Quantitative Social Research Methods 5. 网络社会研究 Research on Network Society 6. 旅游社会学 Tourism Sociology
物理学院 School of Physics	0702 物理学 Physics	1. 非线性光学与激光光谱学 Nonlinear Optics and Laser Spectroscopy 2. 军用信息光子学技术与器件 Military Information Photonics Technology and Devices 3. 纳米光子学与表面等离激元光学 Nano Photonics and Surface Plasmon Optics

院系	学科	研究方向
		4. 量子信息与量子动力学 Quantum Information and Quantum Dynamics 5. 交叉极端条件凝聚态物理 Cross The Extreme Conditions Of Condensed Matter Physics 6. 高能重离子碰撞物理与强子唯象学 Physics and High Energy Heavy-Ion Collisions Hadron Phenomenological Study 7. 现代功能材料及纳米器件物理 Physical Function of Modern Materials and Nano Device 8. 颗粒物与软物质物理 Particulate Matter and Soft Matter Physics 9. 等离子体传输及其与光场相互作用 Plasma Transport and Its Interaction with Light Field 10. 生物光子学与光学成像技术 Bioluminescence and Optical Imaging Technology
数学学院 School of Mathematics	0701 数学 Mathematics	1. 分析与偏微分方程 Analysis and Partial Differential Equations 2. 代数与拓扑 Algebra and Topology 3. 常微分方程与动力系统 Ordinary Differential Equation and Dynamical System 4. 科学与工程计算 Science and Engineering Computation 5. 数学物理反问题 Inverse Problem of Mathematical Physics 6. 运筹控制与优化 Operational Control and Optimization
数学学院 School of Mathematics	0714 统计学 Statistics	1. 统计学及其在工程中的应用 Statistics and its Application in Engineering 2. 金融统计及大数据分析 Financial Statistics and Big Data Analysis 3. 生物与量子统计 Biology and Quantum Statistics

院系	学科	研究方向
环境学院 School of Environment	0814 土木工程 Civil Engineering	1. 城镇饮用水水质安全保障 Urban Drinking Water Security 2. 污（废）水处理与资源化理论与技术 Theory and Technology of Pollution (Waste) Water Treatment and Resource Utilization 3. 水污染防治及水资源可持续利用 Prevention and Control of Water Pollution and Sustainable Utilization of Water Resources 4. 水化学与环境功能材料 Hydro-chemical Environmental Functional Materials 5. 城市固体废弃物安全处置与资源化 Safe Disposal and Resource Utilization of Municipal Solid Waste 6. 城市水系统数字化与管网优化 Urban Water System Digitalization and Pipeline Network Optimization 7. 城市水循环系统 Urban Water Circulation System
	0830 环境科学与工程 Environmental Science and Engineering	1. 水污染防治及水资源可持续利用 Prevention and Control of Water Pollution and Sustainable Utilization of Water Resources 2. 水化学与环境功能材料 Hydro-chemical Environmental Functional Materials 3. 城市固体废弃物安全处置与资源化 Safe Disposal and Resource Utilization of Municipal Solid Waste 4. 大气污染形成机制与防控 Formation Mechanism and Prevention and Control of Air Pollution 5. 区域环境污染防治与生态工程 Regional Environmental Pollution Prevention and Control and Ecological Engineering 6. 环境系统模拟预测与规划管理 Environmental System Simulation Prediction and Planning Management
生命科学与技术学院	0831/0777 生物医学工程	工学: Engineering:

院系	学科	研究方向
School of Life Science and Technology	Biomedical Engineering	1. 生物医学信息技术 Biomedical Information Technology 2. 纳米生物技术与生物传感器 Nano Biotechnology and Biological Sensors 3. 生物医学检测技术 Biomedical Detection Technology 4. 生物机电一体化技术 Biological Electromechanical Integration Technology 5. 生物医学图像处理 Biomedical Image Processing 6. 组织工程与技术 Tissue Engineering and Technology 理学: Science: 1. 神经生物学 Neurobiology 2. 微生物生物技术 Microbial Biotechnology 3. 发育生物学 Developmental Biology 4. 结构分子生物学 Structural Molecular Biology 5. 肿瘤细胞生物学 Tumor Cell Biology 6. 空间分子细胞生物学 Space Molecular Cell Biology 7. 遗传与生物信息学 Genetics and Bioinformatics
交通科学与工程学院 Transportation Science and Engineering	0823 交通运输工程 Communication and Transportation Engineering	1. 道路建筑材料 Road Construction Materials 2. 路基综合稳定技术 Composite Sub-grade Stability Technology 3. 路面力学与设计方法 Pavement Dynamics and Design Method 4. 道路无损检测技术 Road Nondestructive Testing Technology 5. 道路交通安全 Road Transportation Safety 6. 交通规划 Transportation Planning 7. 交通经济 Traffic Economy 8. 智能运输系统 Intelligent Transportation System 9. 交通管理与控制 Traffic Management and Control
	0814 土木工程	1. 桥梁结构及耐久性 Bridge Structure and Durability

院系	学科	研究方向
	Civil Engineering	2. 桥梁监测、检测及安全性评价 Bridge Monitoring, Monitoring and Safety Evaluation 3. 桥梁抗震及车桥振动 Bridge Seismic and Axle Vibration 4. 既有桥梁改造加固 Both The Bridge Reinforcement 5. 先进复合材料应用 Advanced Composite Applications
土木工程学院 School of Civil Engineering	0814 土木工程 Civil Engineering	1. 钢结构、木结构与组合结构 Steel, Wood and Composite Structures 2. 混凝土结构、砌体结构与新型结构 Concrete Structure, Masonry Structure and New Structure 3. 桥梁与海洋工程结构 Bridges and Ocean Engineering Structures 4. 土木工程材料 Civil Engineering Materials 5. 防灾减灾工程与防护工程 Disaster Prevention and Mitigation Works and Protection Works 6. 岩土与地下工程 Geotechnical and Underground Engineering 7. 土木工程建造与管理 Civil Engineering Construction and Management
	0801 力学 Mechanics	1. 结构振动、冲击、爆炸与控制 Structural Vibration, Impact, Explosion and Control 2. 结构损伤、可靠度与健康监测 Structural Damage, Reliability and Health Monitoring 3. 计算结构力学与计算流体力学 Computational Structural Mechanics and Computational Fluid Dynamics 4. 土木工程智能材料与结构系统 Civil Engineering Intelligent Materials and Structural System 5. 土木工程结构与系统设计理论 Civil Engineering Structure and System Design Theory

院系	学科	研究方向
建筑学院 School of Architecture	0813 建筑学 Architecture	1. 地域建筑设计与理论 Architectural Design and Theory 2. 公共建筑设计及其理论 Public Architecture Design and its Theory 3. 绿色建筑与节能技术 Green Building and Energy Saving Technology 4. 城市与建筑物理环境 City and Building Physical Environment 5. 中外建筑史论与遗产保护 Chinese and Foreign Architectural History and Heritage Protection 6. 城市设计与室内设计 Urban Design and Interior Design
	0833 城乡规划学 Urban and Rural Planning	1. 城乡规划理论与方法 Urban and Rural Planning Theory and Methods 2. 城乡历史文化保护与规划设计 Urban Historical & Cultural Protection and Planning Design 3. 寒地城乡人居环境规划 Cold to Urban and Rural Living Environment Planning 4. 城镇形态与风貌规划 Urban Form and Landscape Planning 5. 城乡安全与区域规划 Urban and Rural Security and Regional Planning
	0834 风景园林学 Landscape Architecture	1. 西方景观历史与理论 History and Theory of Western Landscape 2. 景观遗产保护与利用 Landscape Heritage Protection and Utilization 3. 景观规划设计理论与理论 Landscape Planning and Design and Theory 4. 风景园林工程与技术 Landscape Architecture Engineering and Technology 5. 生态景观 Ecology Landscape 6. 旅游游憩与规划设计 Tourist Recreation and Planning and Design

院系	学科	研究方向
	0814 土木工程 Civil Engineering	1. 供热计算理论与应用技术 Heating Calculation Theory and Application Technology 2. 通风空调理论与应用 Ventilation and Air Conditioning Theory and Application 3. 建筑节能与能源利用 Building Energy Efficiency and Energy Utilization 4. 燃气储运及城市燃气应用 Gas Storage and Transportation and Urban Gas Application 5. 暖通空调系统测控理论与技术 HVAC Systems and Control Theory and Technology 6. 建筑环境 Built Environment
电子与信息工程学院 School of Electronics and Information Engineering	0810 信息与通信工程 Information and Communication Engineering	1. 无线通信与网络 Wireless Communication and Network 2. 空天通信理论与技术 Theory and Technology of Space Communication 3. 新体制雷达理论与技术 New System Radar Theory and Technology 4. 微波成像与目标识别技术 Microwave Imaging and Target Recognition Technology 5. 遥感信息处理技术 Remote Sensing Information Processing Technology 6. 电子对抗理论与技术 Electronic Countermeasure Theory and Technology 7. 测控理论与技术 Measurement and Control Theory and Technology
化工与化学学院 School of Chemistry and Chemical Engineering	0817 化学工程与技术 Chemical Engineering and Technology	1. 表面与界面化学 Surface and Interface Chemistry 2. 高分子复合与改性 Polymer Composite and Modification 3. 化学电源与电化学工程 Chemical Power Source and Electrochemical Power Engineering 4. 功能材料制备与性能 Preparation and Performance of Functional Materials

院系	学科	研究方向
		5. 生物合成与分离工程 Biological Synthesis and Separation Engineering 6. 生物分子工程 Biomolecular Engineering 7. 新能源化工 New Energy Chemical Industry