重庆大学随机分析研讨会

会　议　手　册

主办单位：重庆大学数学与统计学院

2023 年 11 月 10 日 - 11 月 12 日　|　重庆

目录

一、会议概要

主　　题　重庆大学2023年随机分析研讨会

时　　间　2023年11月9日报到，11月10–12日学术会议

会议地点　重庆科苑戴斯酒店

主办单位　重庆大学数学与统计学院

资助机构　重庆大学数学与统计学院、非线性分析数学与应用教育部重点实验室、重庆市非线性分析及应用高校重点实验室、重庆大学理学部

会议特邀专家（按姓氏字母顺序排列）

陈萍、董昭、顾帆、刘勇、李月、潘天翊、彭旭辉、尚世界、汪键、吴奖伦、魏苇、王炜、肖惠、杨娟、杨赛赛、杨雪、翟建梁、张土生、周喆

会议联系人

周国立：15923908117，zhouguoli736@126.com

二、日程安排

11 月 9 日（星期四），地点：重庆市沙坪坝区重庆科苑戴斯酒店	
14:00-21:00	报到注册，地点：重庆市沙坪坝区重庆科苑戴斯酒店一楼大堂
18:00-21:30	**晚餐，地点： 重庆科苑戴斯酒店三楼民主湖包房**

11 月 10 日上午（星期五），地点：重庆科苑戴斯酒店 4 楼多功能厅			
时间	**报告人**	**报告题目**	**主持人**
8:30-9:00	开幕式：院长致辞		**温从华** 西交利物浦大学
9:00-9:20	**张土生** 中国科学技术大学	Well-posedness of stochastic partial differential equations with fully local monotone coefficients	
9:20-9:40	**董昭** 中科院数学与系统科学研究院	Global well-posedness and backward uniqueness of stochastic 3D Burgers equation in $\mathbb{L}^2(\mathbb{T}^3,\mathbb{R}^3)$	
9: 40-10:00	**翟建梁** 中国科学技术大学	Large deviation principles for stochastic partial differential equations driven by pure jump Lévy noise	
10:00 – 10:30	**茶歇**		
10:30-10:50	**尚世界** 中国科学技术大学	Quadratic transportation cost inequalities for stochastic reaction diffusion equations driven by space-time white noise	**翟建梁** 中国科学技术大学
10:50-11:10	**陈萍** 中国科学技术大学	Large deviations of conservative stochastic partial differential equations	

11:10-11:30	**潘天翊** 中国科学技术大学	带传输型噪声的完全局部单调随机偏微分方程的大偏差	
11:30-11:50	**李月** 中国科学技术大学	Large deviation principle for stochastic reaction-diffusion equations with super-linear drift on R driven by space-time white noise	
12:00 – 13:30	**午餐，地点： 重庆科苑戴斯酒店 1 楼 1929 休闲餐厅**		
11 月 10 日下午（星期五），地点：重庆科苑戴斯酒店 4 楼多功能厅			
14:00-14:20	**肖惠** 中国科学院	Conditioned limit theorems for hyperbolic dynamical systems	**尚世界** 中国科学技术大学
14:20-14:40	**杨赛赛** 中国科学技术大学	Schauder estimates for non-local parabolic PDEs on discrete spaces	
14:40-15:00	**王炜** 中国科学技术大学	Stochastic heat equations on moving domains	
15:00 – 15:30	**茶歇**		
15:30-15:50	**魏茸** 安徽师范大学	Large deviations of reflected weakly interactingparticle systems	**宋玉林** 南京大学
15:50-16:10	**顾帆** 北京应用物理与计算数学研究所	On the global well-posedness of the stochastic Schrödinger–Korteweg-de Vries system	
16:10-16:30	**汪键** 杭州师范大学	Accessibility of SPDEs driven by pure jump noise and its applications	
18:20 开始	**晚餐，地点： 老灶房乡村菜（沙坪坝店，沙坪坝南街 4 号，金港大厦负一楼）**		

<table>
<tr><th colspan="4">11 月 11 日（星期六），地点：重庆科苑戴斯酒店 4 楼 1 号会议室</th></tr>
<tr><th>时间</th><th>报告人</th><th>报告题目</th><th>主持人</th></tr>
<tr><td>9:00-9:20</td><td>吴奖伦
北京师范大学-香港</td><td>Monte-Carlo Simulations for Wall-Bounded Fluid Flows via Random Vortex Method</td><td rowspan="3">杨雪
天津大学</td></tr>
<tr><td>9:20-9:40</td><td>刘勇
北京大学</td><td>Some ergodic properties on eventual continuous Markov-Feller semigroups</td></tr>
<tr><td>9:40-10:00</td><td>杨娟
北京邮电大学</td><td>Solve high dimensional partial differential equations by neural network method</td></tr>
<tr><td>10:00 - 10:30</td><td colspan="3">茶歇</td></tr>
<tr><td>10:30-10:50</td><td>杨雪
天津大学</td><td>Probabilistic Interpretations for Solutions to Partial Differential Equations with Divergence Terms and Reflecting Stochastic (Partial) Differential Equations</td><td rowspan="4">王清华
上海财经大学</td></tr>
<tr><td>10:50-11:10</td><td>彭旭辉
湖南师范大学</td><td>Large deviations principle via Malliavin calculus for the Navier–Stokes system driven by a degenerate white-in-time noise</td></tr>
<tr><td>11:10-11:30</td><td>宋玉林
南京大学</td><td>The sensitivity analysis for mean-field SDEs with jumps and its applications in option pricing</td></tr>
<tr><td>11:30-11:50</td><td>周喆
中国科学院</td><td>Johnson and Moser's work in 1982 and our thought</td></tr>
<tr><td>12:00-13:30</td><td colspan="3">午餐，地点： 重庆科苑戴斯酒店 1 楼 1929 休闲餐厅</td></tr>
<tr><td>18:00 开始</td><td colspan="3">晚餐，地点： 重庆科苑戴斯酒店三楼文字斋厅</td></tr>
<tr><td colspan="4"></td></tr>
<tr><th colspan="4">11 月 12 日（星期日）</th></tr>
<tr><td>9:00-12:00</td><td colspan="3">关于学科建设、学院发展以及学术专业交流</td></tr>
<tr><td>12:00-13:00</td><td colspan="3">午餐，地点： 三生三味密宗川菜（长嘉汇店）</td></tr>
<tr><td>14:00-18:00</td><td colspan="3">学术合作讨论</td></tr>
<tr><td>18:00 开始</td><td colspan="3">晚餐，地点： 巴倒烫陆派火锅（南山总店）</td></tr>
</table>

三、大会邀请报告题目和摘要

报告题目和摘要（按姓氏字母顺序）

Large deviations of conservative stochastic partial differential equations

陈萍　中国科学技术大学

Abstract： In this paper, we establish a large deviation principle for the conservative stochastic partial differential equations, whose solutions are associated with stochastic differential equations with interaction. The weak convergence method and the contraction principle in the theory of large deviations play an important role.

Global well-posedness and backward uniqueness of stochastic 3D Burgers equation in $L^2(T^3,\mathbb{R}^3)$

董昭 中科院数学与系统科学研究院

Abstract: Global well-posedness for 3D deterministic Burgers equation with $L^2(T^3,\mathbb{R}^3)$ valued initial data is unknown. Here, by a suitable randomization for the initial data, we solve the problem for stochastic 3D Burgers equation. Furthermore, we establish the backward uniqueness for the stochastic 3D Burgers equation, which is also new for the deterministic case.

On the global well-posedness of the stochastic Schr\"{o}dinger–Korteweg-de Vries system

顾帆　北京应用物理与计算数学研究所

Abstract： In this talk, we study the global well-posedness of the stochastic S-KdV system driven by additive noises in $H^1(\mathbb{R})\times H^1(\mathbb{R})$. It is difficult to show the global well-posedness of a related perturbation system even for smooth datum and stochastic forces. To overcome it, we introduce a new kind of sequence of approximation equations, which are well-posed in high regular space and have enough conservation laws. We establish priori estimates, the global well-posedness and convergences of these approximation equations, which help us to get a pathwise priori estimate of the initial system.

Some ergodic properties on eventual continuous Markov-Feller semigroups

刘勇 北京大学

Abstract: In this talk, we introduce the eventual continuity of Markov-Feller semigroups firstly, and then we show some ergodic properties of eventual continuous Markov-Feller semigroups. We also provide some applications of these ergodic properties. This is a joint work with Fuzhou GONG (AMSS,CAS), Yuan LIU (AMSS,CAS) and Ziyu LIU (PKU).

Large deviation principle for stochastic reaction-diffusion equations with super-linear drift on R driven by space-time white noise

李月 中国科学技术大学

Abstract: In this talk, we consider stochastic reaction-diffusion equations with super-linear drift on the real line R driven by space-time white noise. A Freidlin-Wentzell large deviation principle is established by a modified weak convergence method on the space C([0, T], Ctem(R)). Obtaining the main result in this paper is challenging due to the setting of unbounded domain, the space-time white noise, and the superlinear drift term without dissipation. To overcome these difficulties, the special designed norm on C([0, T], Ctem(R)), one order moment estimates of the stochastic convolution and two nonlinear Gronwall-type inequalities play an important role.

带传输型噪声的完全局部单调随机偏微分方程的大偏差

潘天翊 中国科学技术大学

Abstract: In this paper, we establish the small noise large deviation principle for the solutions to the stochastic partial differential equations with fully local monotone coefficient driven by Brownian motion, where the Hilbert - Schmidt norm of the diffusion coefficient may depend on the gradient of the solution.

Large deviations principle via Malliavin calculus for the Navier–Stokes system driven by a degenerate white-in-time noise

彭旭辉　湖南师范大学

Abstract： The purpose of this paper is to establish the Donsker–Varadhan type large deviations principle (LDP) for the two-dimensional stochastic Navier–Stokes system. The main novelty is that the noise is assumed to be highly degenerate in the Fourier space.

Quadratic transportation cost inequalities for stochastic reaction diffusion equations driven by space-time white noise

尚世界 中国科学技术大学

Abstract: This talk concerns quadratic transportation cost inequalities for solutions of stochastic reaction diffusion equations driven by multiplicative space-time white noise, both on bounded and unbounded domains. Specially, on the unbounded domain R, the inequalities are proved under a weighted L^2 -norm and a weighted uniform metric in the so called L^2_{tem} , C_{tem} spaces. The new moments estimates of the stochastic convolution with respect to space-time white noise play an important role.

The sensitivity analysis for mean-field SDEs with jumps and its applications in option pricing

宋玉林　南京大学

Abstract： In this paper, by Malliavin calculus for Wiener-Poisson functionals, Bismut type formulas for the parameter of mean-field SDEs with jumps are established. As applications, formulas for the Greeks are derived for asset price processes described by mean-field SDEs with or without jumps. Both of European and Asian options are considered. Numerical results illustrate that the obtained formulas have better effects than the finite difference method in computing the Greeks. This is joint work with Sijia Qin, Zengwu Wang and Yihui Zhang.

Accessibility of SPDEs driven by pure jump noise and its applications

汪键　杭州师范大学

Abstract： we develop a new method to obtain the accessibility of stochastic partial differential equations driven by additive pure jump noise. An important novelty of this paper is to allow the driving noises to be degenerate. As an application, for the first time, we obtain the accessibility of a class of stochastic equations driven by pure jump (possibly degenerate) noise, including stochastic 2D Navier-Stokes equations, stochastic Burgers equations, stochastic singular p-Laplace equations, and stochastic fast diffusion equations. As a further application, we establish the ergodicity of stochastic singular p-Laplace equations and stochastic fast diffusion equations driven by additive pure jump noise, and we remark that the driving noises could be Compound Poisson processes or Lévy processes with heavy tails.

Monte-Carlo Simulations for Wall-Bounded Fluid Flows via Random Vortex Method

吴奖伦 北京师范大学-香港浸会大学联合国际学院

Abstract： This talk is concerned with computational schemes for wall-bounded fluid flows. We first establish a random vortex method by using the reflection technology and perturbation technique. Further, by utilizing this random vortex method, we derive a stochastic representation of the vorticity (and velocity) of the motion of fluid flow moving along a solid wall. Based on this, we propose a Monte-Carlo method for simulating the motion of fluid flow moving along a solid wall. The Monte-Carlo method based on this random vortex dynamic are implemented with numerical schemes via proper discretization, and several Monte-Carlo simulations are then carried out for the flows near the solid wall. This talk is based on joint work with Zhongmin Qian (University of Oxford), Youchun Qiu (University of Tuolouse) and Liang Zhao (Oxford Suzhou Centre for Advanced Research), arXiv:2208.13233 (https://arxiv.org/pdf/2208.13233.pdf).

Large deviations of reflected weakly interacting particle systems

魏茸　安徽师范大学

Abstract: In this talk, we prove a large deviation principle for the empirical measures of a system of weakly interacting diffusions with reflection. We adopt the weak convergence approach. To make this approach work, we show that the sequence of empirical measures of the controlled reflected system will converge to the weak solution of an associated reflected McKean-Vlasov equation.

Stochastic heat equations on moving domains

王炜　中国科学技术大学

Abstract: In this talk, we present the well-posedness of stochastic heat equations on moving domains, which amounts to a study of infinite dimensional interacting systems. The main difficulty is to deal with the problem caused by the time-varying state space and the interaction of the particle systems. The interaction still occurs even in the case of additive noise. This is in contrast to stochastic heat equations in a fixed domain.

Conditioned limit theorems for hyperbolic dynamical systems

肖惠　中国科学院

Abstract: Let $(\mathbb{X}, T)$ be a subshift of finite type equipped with the Gibbs measure ν and let f be a real-valued Hölder continuous function on $\mathbb{X}$ such that $\nu(f)=0$. Consider the Birkhoff sums $S_n f=\sum_{k=0}^{n-1} f\circ T^k$, $n\geq 1$. For any $t\in\mathbb{R}$, denote by τ_t^f the first time when the sum $t+S_n f$ leaves the positive half-line for some $n\geq 1$. By analogy with the case of random walks with independent identically distributed increments, we study the asymptotic as $n\to\infty$ of the probabilities $\nu(x\in\mathbb{X} : \tau_t^f(x)>n)$ and $\nu(x\in\mathbb{X} : \tau_t^f(x)=n)$. We also establish integral and local type limit theorems for the sum $t+S_n f(x)$ conditioned on the set $\{x\in\mathbb{X} : \tau_t^f(x)>n\}$. This is based on joint work (to appear in Ergodic Theory Dynam. Systems) with I. Grama and J.F. Quint.

Solve high dimensional partial differential equations by neural network method

杨娟　北京邮电大学

Abstract：We present some numerical methods for solving high-dimensional PDEs，fractional order differential equations, reflected PDEs and reflected SPDE. The effectiveness of the proposed method is tested by numerical experiments.

Schauder estimates for non-local parabolic PDEs on discrete spaces

杨赛赛　中国科学技术大学

Abstract：In this talk, we consider about a class of non-local parabolic PDEs defined on discrete spaces, i.e. the Euclidean space discretized with mesh size $1/N$ for $N \in \mathbb{N}$. We establish the sharp interior and global Schauder estimates for the non-local parabolic PDEs on generalized Hölder spaces. Moreover, the Schauder estimates are uniformly bounded in N. Our methodology also works in the continuous setting. The regularity estimates of the semigroup associated with the non-local operator on discrete spaces and the perturbation technique play a crucial role.

Probabilistic Interpretations for Solutions to Partial Differential Equations with Divergence Terms and Reflecting Stochastic (Partial) Differential Equations

杨雪 天津大学

Abstract: First, probabilistic interpretations for solutions to a class of Neumann boundary problems for both parabolic and elliptic partial differential equations with singular non-linear divergence terms are presented. Second, several reflecting problems with stochastic (partial) differential equations are solved.

Large deviation principles for stochastic partial differential equations driven by pure jump Lévy noise

翟建梁 中国科学技术大学

Abstract：In this talk, I will present our recent progress on large deviation principles for stochastic partial differential equations driven by pure jump Lévy noise.

Well-posedness of stochastic partial differential equations with fully local monotone coefficients

张土生 中国科学技术大学

Abstract: Consider stochastic partial differential equations (SPDEs) with fully local monotone coefficients in a Gelfand triple. Such SPDEs include many interesting models in applied fields like fluid dynamics etc. In this paper, we establish the well-posedness of the above SPDEs under fully local monotonicity condition solving a longstanding open problem. The conditions on the diffusion coefficient are also allowed to depend on the gradient of the solution. The well-posedness is obtained through a combination of pseudo-monotonicity techniques and compactness arguments.

Johnson and Moser's work in 1982 and our thought

周喆，中科院数学与系统科学研究院

Abstract: In the landmark paper [Johnson and Moser, CMP-1982], the authors used the rotation number approach to establish the spectrum of the one-dimensional Schrodinger operator with almost periodic potentials. In this talk, I will present their paper, specifically on how to introduce the concept of rotation numbers. As an entry point, a picture of rotation numbers will be demonstrated. At last, I will discuss our thought on their paper.

四、重庆大学简介

重庆大学（ChongqingUniversity，CQU），简称“重大”，是中华人民共和国教育部直属，由教育部、重庆市、国家国防科技工业局共建的全国重点大学，位列国家“双一流”、“211 工程”、“985 工程”，入选“珠峰计划”、“强基计划”、“高等学校创新能力提升计划”、“高等学校学科创新引智计划”、“卓越工程师教育培养计划”、“卓越法律人才教育培养计划”、国家建设高水平大学公派研究生项目、中国政府奖学金来华留学生接收院校、教育部来华留学示范基地，为卓越大学联盟、中波大学联盟、一带一路高校联盟、“长江—伏尔加河”高校联盟、CDIO 工程教育联盟、中国高等戏剧教育联盟成员单位、“国优计划”首批试点高校。

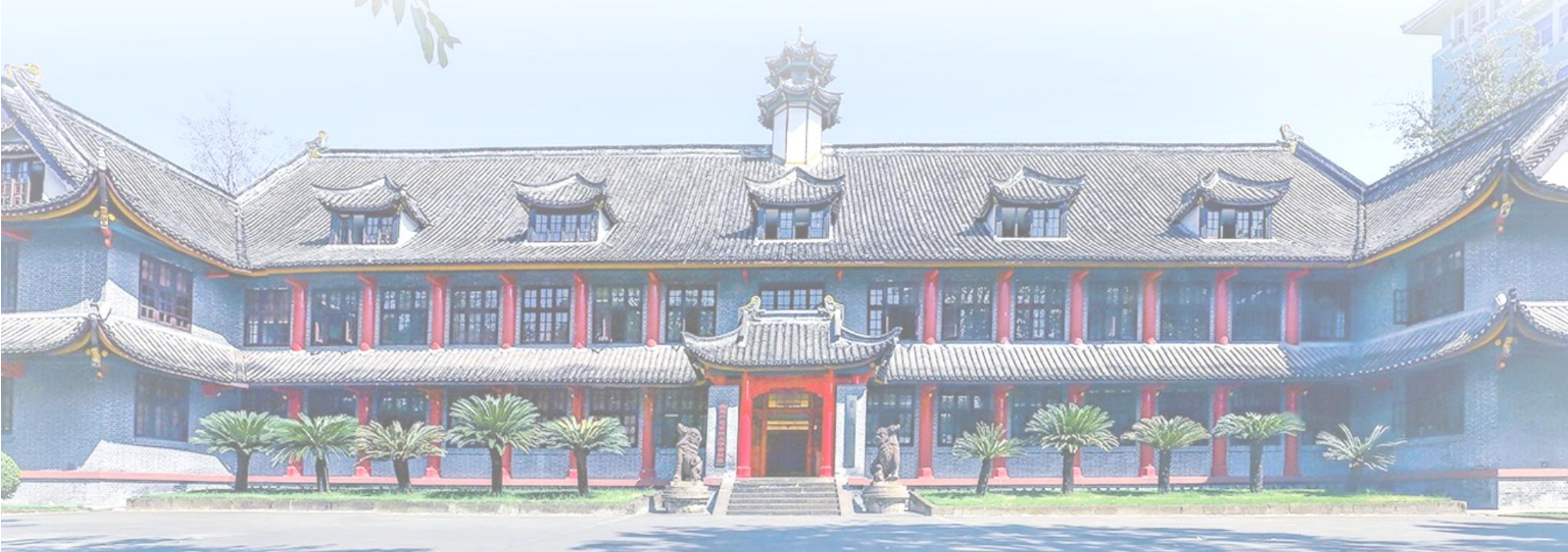
学校创办于 1929 年，提出建设“完备弘深之大学”的愿景，到 20 世纪 40 年代发展成为文理工商法医各学科齐全的综合性大学。经过 1952 年全国院系调整，成为以工科为主的多科性大学。1960 年被确定为全国重点大学。改革开放后，学校进行了全面的恢复调整和改革建设，成为一所以工为主、多学科协调发展的高校，1998 年获批国家“211 工程”重点建设高校。2000 年原重庆建筑大学、重庆建筑高等专科学校与重庆大学合并组建为新的重庆大学，2001 年成为“985 工程”重点建设高校。2017 年入选国家“世界一流大学建设高校（A 类）”，2022 年入选第二轮“双一流”建设高校。学校发展进入新的历史阶段，朝着中国特色、世界一流大学办学目标不懈奋进。

学校入选全国首批 10 所“三全育人”综合改革试点高校、首批 20 所“高校思想政治工作创新发展中心”承建高校、首批 10 所国家卓越工程师学院建设高校、10 所“储能技术国家急需高层次人才培养专项”实施高校、国家储能技术产教融合创新平台。大力实施“本科教育 2029 行动计划”，打造一流本科教育。成立本科生院，全面实施大类招生、大类培养，加强通识教育。61 个专业入选国家级一流本科专业，68 门课程入选国家级一流本科课程；数学与应用数学、物理学专业进入“强基计划”，曙光计算机科学拔尖学生培养基地获批教育部基础学科拔尖学生培养计划 2.0 基地，大数据与软件学院入选首批特色化示范性软

件学院。与两江新区共建明月湖新工科教育创新平台、重庆卓越工程师学院。持续深化培养体制机制改革，开展科研经费博士、工程硕博士培养改革专项试点，大力实施“研究生教育高质量发展行动计划”，打造卓越研究生教育。获批学位授权自主审核高校，有一级学科博士学位授权点38个、博士专业学位授权点8个，一级学科硕士学位授权点51个，专业学位授权点25个；博士生年招生规模1150余人。深化“产教融合、跨界培养”，先后获评“全国首批深化创新创业教育改革示范高校”“全国创新创业典型经验高校”“国家大众创业万众创新示范基地”等，承办第八届中国国际“互联网+”大学生创新创业大赛。

截至2023年6月，学校有A校区、B校区、C校区、虎溪校区和两江校区，校园占地面积5300余亩；设有7个学部、35个学院及7所附属医院，开设108个本科专业；拥有一级学科博士学位授权点38个、博士专业学位授权点8个，一级学科硕士学位授权点51个，专业硕士学位授权点25个；在校学生50000余人，其中研究生24000余人，本科生26000余人。大力实施人才强校战略，系统构建起“3+7”人事人才制度体系和人才引育“金字塔”，积极营造“近者悦、远者来”的人才发展氛围，以先进体制机制激发高层次人才持续汇聚的内生动力。现有专任教师3200余人，其中包括8位院士在内的国家级人才270余人次，博士生导师1100余人，副高级以上专业技术人员2100余人。

面向未来，重庆大学将秉承“研究学术、造就人才、佑启乡邦、振导社会”的办学宗旨，立足新发展阶段、贯彻新发展理念、服务构建新发展格局，与时俱进建设世界一流大学，全面提升服务区域发展和国家战略能力，以“时时放心不下”的责任感，奋力谱写学校新发展阶段高质量发展新篇章，为全面建设社会主义现代化国家、全面推进中华民族伟大复兴贡献“重大”力量。



五、重庆大学数学与统计学院简介

重庆大学数学与统计学院的前身是始建于1929年的重庆大学理学院和1937年建立的重庆大学商学院。1998年7月恢复理学院。2001年1月与重庆建筑大学数学学科合并，更名为数理学院。2010年6月正式成立数学与统计学院。九十多年来，数学名家何鲁、柯召、胡坤陞、段调元、潘璞、周雪欧等都曾任教于此。经过几代人的不懈努力，学院目前拥有数学一级学科博士点、统计学一级学科博士点、数学博士后流动站、数学重庆市一级重点学科、统计学重庆市一级重点学科、重庆市“分析数学与应用”重点实验室、重庆市“非线性分析及应用”高校重点实验室、重庆市数学科学研究所、重庆大学数学中心、重庆市数学实验教学示范中心、重庆大学数学科学创新实践工作站等学科研究平台和教学实践平台。

近年来，学院数学与统计学科聚焦立德树人根本任务，着眼国家地区重大战略需求，以国际前沿和热点问题为核心，以学科交叉为支撑，致力于前瞻性、战略性、前沿性问题研究，形成了特色鲜明的研究队伍。动力系统与遍历论研究团队，开创了泛函分析、算子代数在动力系统中的深刻应用，解决了一系列重要猜想，在数学四大顶级期刊发表了论文3篇，其成果得到包括获得菲尔兹奖获得者E.Lindenstrauss等著名数学家的多次引用。泛函分析研究团队，解决了算子理论中若干数十年未解决的公开问题，取得了一系列具有国际影响力的研究成果。微分方程研究团队，在国际一流数学期刊Adv. Math.、Arch. Ration. Mech. Anal.等发表了一系列高水平论文，获得省部级奖3项。运筹与计算研究团队，受意大利国家最高科技奖获得者F. Giannessi教授邀请撰写了系列综述文章，获得省部级奖1项。统计学研究团队，在统计学高水平期刊Biometrics、Scand. Actuar. J.等发表SCI论文100多篇。

学院数学学科2016年列入重庆大学“双一流”建设重点培育学科；2016年第四轮学科评估位列B+；2017年进入ESI全球前1%学科；2018年入选重庆市首批“一流专业”；2019年入围国家首批“双万计划”；2020年入选国家首批 “强

基计划”。根据内布拉斯加大学林肯分校关于精算学科的统计排名，学院统计学科精算方向在2015-2019年度全球排名第26位。

学院下设数学系、信息与计算科学系、统计与精算学系，分别建设有数学与应用数学专业、信息与计算科学专业、统计学专业、金融数学专业等4个本科专业。学院有在编教职工113人，其中：专任教师97人，管理和实验人员16人；教授/研究员30人，副教授/副研究员31人；博导26人，硕导58人；教育部新世纪人才2人，国家突出贡献专家1人，国务院政府特殊津贴获得者1人，全国教学（专业）指导委员会委员4人，重庆市“百人计划”学者2人，重庆市“322重点人才工程”2人，重庆市学科学术技术带头人8人，重庆市科学学术技术后备人才2人，重庆市优秀教师1人，重庆市中青年骨干教师3人，重庆大学“百人计划”学者5人。

目前，学院有本科生705名，在校学历研究生295名，其中，学历博士生43名，全日制学术型硕士生117名，全日制专业型硕士生102名。学院每年为全校开设本科生课程100多门，对外院开课60余门，通识与素质教育课程近20门次；研究生课程80余门，其中全校研究生公共课近40门次。在本科毕业生中，每年推荐多名学生到国内著名高校攻读学位或到国外著名高校留学，毕业生进一步深造的比例超过40%。

学院拥有国家级一流线上课程2门，国家级线上线下一流混合式课程2门，国家精品资源共享课程1门，重庆市精品在线开放课程2门。获国家科技进步二等奖1项、国家教学成果二等奖3项、重庆市教学成果一等奖5项、教育部自然科学一等奖2项、二等奖1项，重庆市自然科学二等奖2项。

学院充分发挥数学、统计学在经济、社会等领域的优势，为国家和重庆市经济与社会发展提供一系列卓有成效的服务。例如，作为主要支撑学科之一，本学科参与“工业CT无损检测教育部工程研究中心”的建设，参与行业标准的制定等；推动重庆市数学、统计学领域专家学者与国内外同行的学术交流与合作，扩大重庆数学、统计学在全国的影响力和国际知名度等等。