中国运筹学会金融工程与金融风险管理分会

第十一届学术年会

会议手册

主办单位

河北师范大学

中国运筹学会金融工程与金融风险管理分会

复旦大学

中国 · 石家庄

2022 年 12 月 10 日-11 日

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组织机构

主 办 单 位： 河北师范大学
中国运筹学会金融工程与金融风险管理分会
复旦大学

程序委员会： （按姓氏拼音先后排名）

主　　席：	胡奇英	复旦大学
	张学文	河北师范大学
副 主 席：	陈志平	西安交通大学
	洪　流	复旦大学
	马敬堂	西南财经大学
	王小群	清华大学
	王永进	南开大学
	张立卫	大连理工大学
	朱书尚	中山大学
委　　员：	薄立军	中国科学科技大学
	崔雪婷	上海财经大学
	蔡　宁	香港科技大学
	陈昕韫	香港中文大学（深圳）
	陈树敏	广东工业大学
	高建军	上海财经大学
	高雪峰	香港中文大学
	何雪冬	香港中文大学
	胡　捷	上海高级金融学院
	胡支军	贵州大学
	胡照林	同济大学
	韩　乾	厦门大学
	吉小东	河北师范大学
	凌爱凡	上海外国语大学
	刘彦初	中山大学
	李　平	北京航空航天大学
	罗　俊	上海交通大学
	雷　蕾	重庆大学
	彭一杰	北京大学
	史永东	东北财经大学
	石　芸	华东师范大学
	隋　聪	大连海事大学

文凤华	中南大学
王海婴	香港中文大学
徐凤敏	西安交通大学
徐玉红	苏州大学
姚　京	复旦大学
杨学伟	南京大学
杨招军	南方科技大学
杨金强	上海财经大学
周　科	湖南大学
曾　燕	中山大学
郑小金	同济大学

组织委员会：（按姓氏拼音先后排名）

主　　席：	高建军	上海财经大学
	王艳芳	河北师范大学
副 主 席：	姜广鑫	哈尔滨工业大学
	吉小东	河北师范大学
	周　科	湖南大学
委　　员：	王继强	河北师范大学
	张　滨	河北师范大学
	孙士岭	河北师范大学
	赵云鹏	河北师范大学
	赵振刚	河北师范大学
秘　　书：	冯倩昀	河北师范大学
	胡晴晴	河北师范大学
	葛　腾	河北师范大学
	杨　卓	河北师范大学
	刘　畏	河北师范大学

会议事项

1. 会议平台

会议平台采用“腾讯会议”，输入腾讯会议号“553-1563-3203”进入“腾讯会议”，本次会议只有一个腾讯会议号。

请各位专家提前十分钟进入会议室，昵称修改为“姓名-***大学”。如中途进入会议，请提前关闭麦克风。

2. 进入分会场操作步骤

步骤一：点击“腾讯会议”平台下方的“分组讨论”。

步骤二：根据会议简要日程，选择相应分会场，点击“加入”.

步骤三：若需要离开本分会场，进入其他分会场，点击“腾讯会议”平台下方的“离开讨论组”，随即选择“返回主会场”。

步骤四：重复“步骤一”进入其他分会场。

3. 会场服务人员联系方式

主　会　场：高建军 18201925139　吉小东 15131192127　王继强 13260439597

第一分会场：赵振刚 18032918971　杨　卓 18812013426

第二分会场：赵云鹏 13730119122　胡晴晴 17831112860

第三分会场：孙士岭 15200022126　刘　煚 18132451382

第四分会场：张　滨 15246663296　葛　腾 13722570950

简要日程（12 月 10 日）

12 月 10 日					
上午	8:00-8:20	**参会人员线上入会**			主会场 腾讯会议号 553-1563-3203
	8:20-8:50	**开幕式、线上合影**			
	8:50-9:35	大会特邀报告（一） 周迅宇 教授			
	9:35-10:20	大会特邀报告（二） 胡海峰 教授			
	10:20-11:05	大会特邀报告（三） 王若度 教授			
	11:05-11:10	**茶 歇**			
	专题邀请报告				
		第一分会场	第二分会场		
	11:10-11:40	石芸	李迅		
	11:40-12:10	秦聪	隋聪		
下午	**专题邀请报告**				
		第一分会场	第二分会场		
	13:30-14:00	万相伟	邓军		
	分组报告&青年学者最佳论文报告				
		第一分会场	第二分会场	第三分会场	第四分会场
	14:00-15:20	分组报告（一） **金融中自由边界问题的前沿理论与算法** 邓东雅 邢 杰 吴皓斐 周志强	分组报告（四） **市场质量与最优执行** 杨 念 王冠英 张 伟 曹沅岚	分组报告（七） **期权定价与风险管理** 丁凯琳 郭芝宇 李童庆	**最佳论文奖专题一** 陈鹏展 颜廷进 黄伟桓 黄 迎
	15:30-16:50	分组报告（二） **数字金融与保险** 赵轶星 胡健薇 林洁瑜 卫丽君	分组报告（五） **金融市场定价与优化** 田德建 陈媛媛 孙可欣 谢金言	分组报告（八） **风险估计与投资组合选择** 王天翔 张志远 崔翔宇 陈 燕	**最佳论文奖专题二** 康俊卿 李文迪 董志龙 李童庆
	17:00-18:20	分组报告（三） **金融市场实证研究** 颜廷进 凌爱凡 庄希颉 臧 鑫	分组报告（六） **稀疏金融优化** 屈绍建 黄日朋 王仲妍 盛茜雯	分组报告（九） **金融风险与预测** 黄金波 王意德 赵 靖 何 欣	**最佳论文奖专题三** 张艺赢 庞小川 赵朝熠

简要日程（12 月 11 日）

<table>
<tr><td rowspan="10">上
午</td><td colspan="5">12 月 11 日</td></tr>
<tr><td colspan="5">分组报告</td></tr>
<tr><td></td><td>第一分会场</td><td>第二分会场</td><td>第三分会场</td><td>第四分会场</td></tr>
<tr><td>8:30-10:30</td><td>分组报告（十）
投资组合优化
叶一帆 马 越
郑田田 吴伟平
金成能 战昕彤</td><td>分组报告（十一）
金融风险管理
戴志锋 刘志峰
胡 凡 王琳玉
赵林海 郭艳红</td><td>分组报告（十二）
金融波动
张冬灵 岳东岐
郭涅培 樊芮伲
孟纬茜 肖书华</td><td>分组报告（十三）
资产配置
周 骐 赵志华
王一君 马贵元
李俊雪</td></tr>
<tr><td colspan="5">专题邀请报告</td></tr>
<tr><td></td><td colspan="2">第一分会场</td><td colspan="2">第二分会场</td></tr>
<tr><td>10:40-11:10</td><td colspan="2">薄立军</td><td colspan="2">李平</td></tr>
<tr><td>11:20-11:50</td><td colspan="4">闭幕式</td></tr>
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详细日程

	时间	会议内容	主持人	会场
12月10日上午	8:00-8:20	参会人员报到		
	会议开幕式			
	8:20-8:50	嘉宾介绍	张学文 河北师范大学	主会场
		河北师范大学副校长郑振峰教授致辞		
		中国运筹学会理事长戴彧虹教授致辞		
		中国运筹学会金融工程与金融风险管理分会理事长胡奇英教授致辞		
		参会人员线上合影		
	大会特邀报告（一）			
	8:50-9:35	q-Learning in Continuous Time	胡建强 复旦大学	
		报告人：哥伦比亚大学 周迅宇 教授		
	大会特邀报告（二）			
	9:35-10:20	十八大以来我国防范化解金融风险的进展、成就与经验	朱书尚 中山大学	
		报告人：北京师范大学 胡海峰 教授		
	大会特邀报告（三）			
	10:20-11:05	Model Aggregation for Risk Evaluation and Robust Optimization	陈志平 西安交通大学	
		报告人：滑铁卢大学 王若度 教授		
	11:05-11:10	茶歇		
	专题邀请报告			
	11:10-11:40	Beta and Coskewness Pricing: Perspective from Probability Weighting	王永进 南开大学	第一分会场
		报告人：石芸（华东师范大学）		
	11:40-12:10	Dynamic Trading with Realization Utility		
		报告人：秦聪（苏州大学）		
	专题邀请报告			
	11:10-11:40	Optimal Consumption with Loss Aversion and Reference to Past Spending Maximum	姜广鑫 哈尔滨工业大学	第二分会场
		报告人：李迅（香港理工大学）		

	时间	会议内容	主持人	会场
	11:40-12:10	基于远期运费协议（FFA）期限结构的航运运费预测研究 报告人：隋聪（大连海事大学）		
12月10日下午	专题邀请报告			
	13:30-14:00	Pi Portfolio Management: Reaching Goals while Avoiding Losses 报告人：万相伟（上海交通大学）	崔翔宇 上海财经大学	第一分会场
	13:30-14:00	Liquidation, Speculation and Hedging of Bitcoin Perpetual Futures 报告人：邓军（对外经济贸易大学）	周科 湖南大学	第二分会场
	分组报告（一） 金融中自由边界问题的前沿理论与算法			
	14:00-14:20	Deep Reinforcement Learning for Momentum-based Trading Strategies 报告人：邓东雅（河北师范大学）	邓东雅 河北师范大学 邢杰 贵州财经大学	第一分会场
	14:20-14:40	Optimal Entry Decision of Unemployment Insurance under Partial Information 报告人：邢杰（贵州财经大学）		
	14:40-15:00	Neural Network Rough Volatility Model and Fast Calibration 报告人：吴皓斐（西南财经大学）		
	15:00-15:20	Convergence Analysis of RBF Contour Integral Methods for High-dimensional Option Pricing PDEs 报告人：周志强（湘南学院）		
	分组报告（二） 数字金融与保险			
	15:30-15:50	Impact of Insurance on Capital-constrained Supply Chain Finance under Asymmetric Information 报告人：赵轶星（广东外语外贸大学）	曾燕 中山大学岭南学院	第一分会场

	时间	会议内容	主持人	会场
12月10日下午	15:50-16:10	Home Region Orientation, International Intensity, and Funding Performance of International Crowdfunding Projects		
		报告人：胡健薇（中山大学）		
	16:10-16:30	Impact of Insurer Technology Accessibility as Private Information		
		报告人：林洁瑜（清华大学）		
	16:30-16:50	C2C 二手电商平台的绿色补贴策略与诚信建设努力水平		
		报告人：卫丽君（西安交通大学）		
	分组报告（三） 金融市场实证研究			
	17:00-17:20	Equilibrium Pairs Trading Under Delayed Cointegration	凌爱凡 上海外国语大学	第一分会场
		报告人：颜廷进（华东师范大学）		
	17:20-17:40	A Robust Financing Theory of ICOs under Demand Uncertainty		
		报告人：凌爱凡（上海外国语大学）		
	17:40-18:00	加密货币新型监管模式研究 ——基于矿工偏好视角		
		报告人：庄希颉（北京科技大学）		
	18:00-18:20	From Implied Volatilities of Options on Futures to Spot Volatilities		
		报告人：臧鑫（北京交通大学）		
	分组报告（四） 市场质量与最优执行			
	14:00-14:20	Optimal Liquidation Using After-hours Fixed-price Trading	王冠英 天津大学	第二分会场
		报告人：杨念（南京大学）		
	14:20-14:40	尾部风险对我国公司债定价的影响研究		
		报告人：王冠英（天津大学）		
	14:40-15:00	How do IPO Valuations Affect Investors? Implications for Post-issuance Performance of Chinese Enterprises		
		报告人：张伟（天津财经大学）		

	时间	会议内容	主持人	会场
12月10日下午	15:00-15:20	涨跌停限制放宽对创业板市场质量的影响		
		报告人：曹沅岚（南京大学）		
	分组报告（五） 期权定价与风险管理			
	15:30-15:50	Pricing Principle via Tsallis Relative Entropy in Incomplete Market	陈媛媛 南京大学	第二分会场
		报告人：田德建（中国矿业大学）		
	15:50-16:10	Counter-cyclical Margins for Option Portfolios		
		报告人：陈媛媛（南京大学）		
	16:10-16:30	High-Moment Portfolio Selection: A Data-Driven Case		
		报告人：谢金言（上海财经大学）		
	16:30-16:50	Distributionally Robust Optimization with Wasserstein Metric for Multi-period Portfolio Selection Under Uncertainty		
		报告人：孙可欣（南京信息工程大学）		
	分组报告（六） 稀疏金融优化			
	17:00-17:20	Robust Sparse Portfolio Optimization	屈绍建 南京信息工程大学	第二分会场
		报告人：屈绍建（南京信息工程大学）		
	17:20-17:40	Robust Portfolio Selection with Distributional Uncertainty and Integer Constraints		
		报告人：黄日朋（滁州学院）		
	17:40-18:00	Distributionally Robust Sparse Portfolio Optimization Model under Satisfaction Criterion		
		报告人：王仲妍（南京信息工程大学）		
	18:00-18:20	Distributionally Robust Sparse Portfolio Optimization		
		报告人：盛茜雯（南京信息工程大学）		

	时间	会议内容	主持人	会场
12月10日下午	分组报告（七） 期权定价与风险管理			
	14:00-14:20	Pricing Arithmetic Asian and Amerasian Options: A Diffusion Operator Integral Expansion Approach	丁凯琳 中国科学院数学与系统科学研究院	第三分会场
		报告人：丁凯琳（中国科学院数学与系统科学研究院）		
	14:20-14:40	Option Pricing under an Endogenous Regime Switching GARCH Model		
		报告人：郭芝宇（北京大学）		
	14:40-15:00	Approximating Nash Equilibrium for Production Control with Sticky Price		
		报告人：李童庆（西安电子科技大学）		
	分组报告（八） 风险估计与投资组合选择			
	15:30-15:50	Efficient Estimation of a Risk Measure Requiring Two-Stage Simulation Optimization	崔翔宇 上海财经大学	第三分会场
		报告人：王天翔（华东师范大学）		
	15:50-16:10	Testing for Stationarity of Intraday Volatility Curves		
		报告人：张志远（上海财经大学）		
	16:10-16:30	Dynamic Portfolio Selection and Factor Learning		
		报告人：崔翔宇（上海财经大学）		
	16:30-16:50	Dynamic Volatility Spillover and Market Emergency: Matching and forecasting		
		报告人：陈燕（云南财经大学）		
	分组报告（九） 金融风险与预测			
	17:00-17:20	经济风险、前瞻信息与收益率预测	黄金波 广东财经大学	第三分会场
		报告人：黄金波（广东财经大学）		
	17:20-17:40	跨市场信息传递与股市波动预测研究		
		报告人：王意德（南京大学）		

	时间	会议内容	主持人	会场
12月10日下午	17:40-18:00	中国信用债市场的共同风险因子：基于截面收益的证据		
		报告人：赵靖（清华大学）		
	18:00-18:20	Asset Pricing with Panel Tree under Global Split Criteria		
		报告人：何欣（湖南大学）		
	最佳论文奖专题一			
	14:00-14:20	A General Approximation Method for Optimal Stopping and Random Delay	胡建强 复旦大学	第四 分会场
		报告人：陈鹏展（中国科学技术大学）		
	14:20-14:40	Optimal Liquidation with Delay in Prices and Trading Signals		
		报告人：颜廷进（华东师范大学）		
	14:40-15:00	Monte-Carlo Estimation of CoVaR		
		报告人：黄伟桓（南京大学）		
	15:00-15:20	金融市场非流动性、投资者心理与期权收益		
		报告人：黄迎（上海财经大学 ）		
	最佳论文奖专题二			
	15:30-15:50	Quantitative Investing and Price Informativeness	胡建强 复旦大学	第四 分会场
		报告人：康俊卿（中山大学）		
	15:50-16:10	Exact Tail Asymptotics for Fluid Models Driven by an M/M/c Queue		
		报告人：李文迪（西安电子科技大学）		
	16:10-16:30	On Some Extended Mixed Integer Optimization Models of the Eisenberg–Noe Model in Systemic Risk Management		
		报告人：董志龙（西安交通大学）		
	16:30-16:50	Centralized Systemic Risk Control in the Interbank System: Weak Formulation and Gamma-Convergence		
		报告人：李童庆（西安电子科技大学）		

	时间	会议内容	主持人	会场
	最佳论文奖专题三			
	17:00-17:20	Systemic Risk of Optioned Portfolios: Controllability and Optimization	胡建强 复旦大学	第四 分会场
		报告人：庞小川（中山大学）		
	17:20-17:40	Distortion Risk Contribution Ratio Measures: Definitions and Comparisons		
		报告人：张艺赢（南方科技大学）		
	17:40-18:00	一般相依性与边缘分布下的最优影响力投资组合理论		
		报告人：赵朝熠（北京大学）		
12 月 11 日 上 午	分组报告（十） 投资组合优化			
	8:30-8:50	On the Optimal Combination of Portfolio Strategies	吴伟平 福州大学	第一 分会场
		报告人:叶一帆(香港科技大学(广州))		
	8:50-9:10	Robust Strategy for a DC Pension Plan with Information-Processing Capacity		
		报告人：马越（兰州大学）		
	9:10-9:30	High-dimensional Portfolio Optimization Based on Tree-Structured Factor Model		
		报告人：郑田田（北京大学）		
	9:30-9:50	Mean-variance Hybrid Portfolio Optimization with Quantile-based Risk Measure		
		报告人：吴伟平（福州大学）		
	9:50-10:10	Constrained Optimal Execution in Limit Order Book Market with Power-shaped Market Depth		
		报告人：金成能（上海财经大学）		
	10:10-10:30	Unlocking ESG Premium from Options		
		报告人：战昕彤（复旦大学）		
	分组报告（十一） 金融风险管理			
	8:30-8:50	Forecasting the Equity Risk Premium: a new Method Based on Wavelet De-noising	刘志峰 海南大学	第二 分会场
		报告人：戴志锋（长沙理工大学）		

	时间	会议内容	主持人	会场
12月11日上午	8:50-9:10	台风灾害与 ESG 披露：实际风险还是感知风险？		
		报告人：刘志峰（海南大学）		
	9:10-9:30	ETF 的双刃剑：上升的贝塔和下降的波动率		
		报告人：胡凡（广东财经大学）		
	9:30-9:50	“好”、“坏”波动非对称及其风险信息容量——基于上证 50ETF 期权的实证分析		
		报告人：王琳玉（浙江财经大学）		
	9:50-10:10	The Identification of Systemically Important Banks Based on Tsallis Entropy with Application to Chinese Banks		
		报告人：赵林海（华侨大学）		
	10:10-10:30	地方政府债券对我国金融市场的尾部风险溢出研究——基于动态网络模型		
		报告人：郭艳红（南方科技大学）		
	分组报告（十二） 金融波动			
	8:30-8:50	国内外黄金市场间的联动关系研究——以上海、伦敦和纽约市场为例	曹栋 西安电子科技大学	第三分会场
		报告人：张冬灵（西安电子科技大学）		
	8:50-9:10	中国金融科技发展能带来制造业高端化吗?——来自我国省际面板数据的经验证据		
		报告人：岳东岐（西北大学）		
	9:10-9:30	应用性研究比基础性研究更能提高公司研发绩效吗？----来自中国上市公司的证据		
		报告人：郭涅培（西安电子科技大学）		
	9:30-9:50	基于神经网络和投资者情绪的股市指数预测研究		
		报告人：樊芮伲（西安电子科技大学）		
	9:50-10:10	境外机构投资者对企业 ESG 的影响研究		
		报告人：孟纬茜（西安电子科技大学）		

	时间	会议内容	主持人	会场
12月11日上午	10:10-10:30	Optimal Systemic Risk Bailout: A PGO Approach Based on Neural Network		
		报告人：肖书华（中山大学）		
	分组报告（十三） 资产配置			
	8:30-8:50	行业配置、聚类程度与基金业绩	徐凤敏 西安交通大学	第四分会场
		报告人：周骐（华南理工大学）		
	8:50-9:10	Robust Enhanced Indexation Optimization with Sparse Industry Layout Constraint		
		报告人：赵志华（西安电子科技大学）		
	9:10-9:30	Optimal Investment Strategy for DC Pension Funds with a Return of Premium Clause and Predictions about Stock Returns		
		报告人：王一君（河南财经政法大学）		
	9:30-9:50	Dynamic Mean-variance Problem with Frictions		
		报告人：马贵元（西安交通大学）		
	9:50-10:10	When Trackers are aware of ESG: Does ESG Rating Matter to the Performance of Tracking Error Portfolios?		
		报告人：李俊雪（江西师范大学）		
	专题邀请报告			
	10:40-11:10	Large Sample Mean-Field Stochastic Optimization	高建军 上海财经大学	第一分会场
		报告人：薄立军（西安电子科技大学）		
	专题邀请报告			
	10:40-11:10	CoCo 债券与系统性金融风险	吉小东 河北师范大学	第二分会场
		报告人：李平（北京航空航天大学）		
	会议闭幕			
	11:20-11:50	青年学者最佳论文奖颁奖	高建军 上海财经大学	主会场
		胡建强（复旦大学）		
		致闭幕辞		
		胡奇英（中国运筹学会金融工程与金融风险管理分会理事长）		

大会特邀报告

特邀报告一

报告人：周迅宇（哥伦比亚大学）

题目：q-Learning in Continuous Time

摘要：We study the continuous-time counterpart of Q-learning for reinforcement learning (RL) under the entropy-regularized, exploratory diffusion process formulation introduced by Wang et al. (2020). As the conventional (big) Q-function collapses in continuous time, we consider its first-order approximation and coin the term "(little) q-function". This function is related to the instantaneous advantage rate function as well as the Hamiltonian. We develop a "q-learning" theory around the q-function that is independent of time discretization. Given a stochastic policy, we jointly characterize the associated q-function and value function by martingale conditions of certain stochastic processes. We then apply the theory to devise various actor–critic algorithms for solving underlying RL problems, depending on whether or not the density function of the Gibbs measure generated from the q-function can be computed explicitly. One of our algorithms interprets the well-known Q-learning algorithm SARSA, and another recovers a policy gradient (PG) based continuous-time algorithm proposed in Jia and Zhou (2021). Finally, we conduct simulation experiments to compare the performance of our algorithms with those of PG-based algorithms in Jia and Zhou (2021) and time-discretized conventional Q-learning algorithms. Joint work with Yanwei Jia.

报告人简介：Xunyu Zhou is the Liu Family Professor of Financial Engineering and the Director of the Nie Center for Intelligent Asset Management at Columbia University. He was the Nomura Professor of Mathematical Finance at University of Oxford before joining Columbia in 2016. His research covers stochastic control, dynamic portfolio selection, asset pricing, behavioral finance, and time inconsistency. Currently his research focuses on continuous-time reinforcement learning and applications to optimization broadly and to wealth management specifically. He is a recipient of the Wolfson Research Award from The Royal Society, the Outstanding Paper Prize from SIAM, the Alexander von Humboldt Research Fellowship, and the Croucher Senior Research Fellowship. He was an invited speaker at the 2010 International Congress of Mathematicians, a Humboldt Distinguished Lecturer at Humboldt University and an Archimedes Lecturer at Columbia. He is both an IEEE Fellow and a SIAM Fellow. Xunyu Zhou received his PhD in Operations Research and Control Theory from Fudan University in 1989.

特邀报告二

报告人：胡海峰（北京师范大学）

题目：十八大以来我国防范化解金融风险的进展、成就与经验

摘要：统筹做好金融风险防范化解工作，是维护国家经济利益和人民长远利益的重大任务，对推动我国经济高质量发展、构建新发展格局、全面建设社会主义现代化强国具有重大的现实意义。党的十八大以来，党中央、国务院统筹金融发展和安全，牢牢守住了不发生系统性金融风险的底线，对服务实体经济、推进金融体制改革做出了全面部署，在防范化解金融风险方面取得了一系列重大进展，尤其是党的十九大提出的防范化解重大金融风险攻坚战取得重要阶段性成果，加快了金融治理体系和治理能力现代化，推动国家金融高质量发展，坚定维护了国家经济金融稳定和人民财产安全，走出了一条中国特色金融发展之路。

报告人简介：胡海峰，经济学博士、教授、博士生导师，北京师范大学经济与工商管理学院金融系主任，学院学术委员会、学位委员会和教学指导委员会委员。教育部金融学类专业教学指导委员会第一届、第二届委员（2013－2017 年、2018-2022 年），中国国际金融学会理事、世界经济学会理事、中华外国经济学说研究会常务理事、北京区域经济学会副会长，国家社科基金重大招标项目首席专家，国家社科基金、国家自然科学基金、中国博士后科学基金、教育部人文社科基金、北京市社科基金、北京市自然科学基金评审专家，教育部学位与研究生教育发展中心学位论文评审、学科建设和评估咨询评审专家，清华大学、北京大学、复旦大学、重庆大学、兰州大学、西南大学正高级职称校外评审专家，兰州财经大学甘肃省“飞天学者”特聘教授，河南大学讲座教授，河南大学金融发展与风险评估实验室学术委员。近年来，曾主持国家社科基金重大、重点、一般项目以及教育部教育部人文社科项目、北京市社科基金、财政部、国家发改委等国家级、省部级课题多项，在《管理世界》《世界经济》《统计研究》《数量经济技术经济研究》《国际金融研究》《经济学动态》《财贸经济》等学术期刊发表论文多篇，出版专著、教材多部。

特邀报告三

报告人：王若度（滑铁卢大学）

题目：Model Aggregation for Risk Evaluation and Robust Optimization

摘要：We introduce a new approach for prudent risk evaluation based on stochastic dominance, which will be called the model aggregation (MA) approach. In contrast to the classic worst-case risk (WR) approach, the MA approach produces not only a robust value of risk evaluation but also a robust distributional model which is useful for modeling, analysis and simulation, independent of any specific risk measure. The MA approach is easy to implement even if the uncertainty set is non-convex or the risk measure is computationally complicated, and it provides great tractability in distributionally robust optimization. Via an equivalence property between the MA and the WR approaches, new axiomatic characterizations are obtained for a few classes of popular risk measures. In particular, the Expected Shortfall (ES, also known as CVaR) is the unique risk measure satisfying the equivalence property for convex uncertainty sets among a very large class. The MA approach for Wasserstein and mean-variance uncertainty sets admits explicit formulas for the obtained robust models, and the new approach is illustrated with various risk measures and examples from portfolio optimization.

报告人简介：Dr. Ruodu Wang is University Research Chair, Sun Life Fellow, and Professor of Actuarial Science and Quantitative Finance at the University of Waterloo in Canada. He received his PhD in Mathematics (2012) from the Georgia Institute of Technology, after completing his Bachelor (2006) and Master’s (2009) degrees at Peking University. He holds editorial positions in leading journals in actuarial science and mathematical economics, including Co-Editor of the European Actuarial Journal, and Co-Editor of ASTIN Bulletin - The Journal of the International Actuarial Association. His scientific work has appeared in academic journals and conferences in various other fields, such as Management Science, Operations Research, The Annals of Statistics, Journal of the Royal Statistical Society Series B, and NeurIPS. He is an affiliated member of RiskLab at ETH Zurich. Among other international awards and recognitions, he is the inaugural winner of the SOA Actuarial Science Early Career Award (2021) from the Society of Actuaries, and a Fellow of the Institute of Mathematical Statistics (elected 2022).

专题邀请报告

报告人：石芸（华东师范大学）
题目：Beta and Coskewness Pricing: Perspective from Probability Weighting
摘要：The securities market line is often flat. We hypothesize that probability weighting plays a role and that one ought to differentiate periods in which agents overweight and underweight tails. Overweighting inflates the probability of extremely bad events and demands greater compensation for beta risk, whereas underweighting is the opposite. Overall, these two effects offset each other, resulting in a nearly flat return-beta relationship. Similarly, overweighting the tails enhances the negative relationship between return and coskewness, while underweighting reduces it. We offer a psychology-based explanation regarding the vacillation between overweighting and underweighting, and we support our theories empirically.

报告人：秦聪（苏州大学）
题目：Dynamic Trading with Realization Utility
摘要：We develop a model where a realization-utility investor (Barberis and Xiong, 2009, 2012; Ingersoll and Jin, 2013) optimally targets her liquid-illiquid wealth ratio at a constant $w*$. By saving in the risk-free asset ($w* > 0$), she makes smaller bets in the illiquid asset and realizes gains/losses more frequently. By leveraging ($w* < 0$), she makes bets larger than her equity and realizes gains/losses less frequently. For a discontinuous/jump-diffusion price process, the solution features four regions: loss-realization, gain-realization, and two disconnected (deep-loss and normal) holding regions. We generate a quantitatively significant non-monotonic propensity to realize losses consistent with evidence.

报告人：李迅（香港理工大学）
题目：Optimal Consumption with Loss Aversion and Reference to Past Spending Maximum
摘要：This talk studies an infinite horizon optimal consumption and investment problem of a loss-averse individual, related to her past consumption behaviour. In particular, the preference is measured by the difference between the non-negative consumption rate and a fraction of the historical spending peak. The original problem, whose utility is non-concave, can be transformed into an equivalent problem with the concavified utility, which can be solved by dynamic programming. The associated HJB equation is expressed heuristically, and its classical solution is derived by employing dual transform and smooth-fit principle. Some thresholds are obtained to distinguish regions of the wealth and current reference point, and optimal feedback controls are obtained in closed-form in each region. The numerical examples shed light on our theoretical results and some financial implications. This work is jointed with Xiang Yu and Steve Zhang.

报告人：隋聪（大连海事大学）
题目：基于远期运费协议（FFA）期限结构的航运运费预测研究
摘要：航运远期运费协议 (Forward Freight Agreement，FFA) 是目前航运市场上占有绝对优势的进行风险对冲的衍生产品。本文考虑航运市场预期及其随机过程，在 Schwartz97 双因素模型框架下，构造 FFA 定价封闭解；并采用卡尔曼滤波结合极大似然法，估计随机过程参数，将其提取为 FFA 期限结构的特征因子。由于期限结构在市场预测中可以发挥重要作用，我们进一步利用含外生变量的自回归积分滑动平均（ARIMAX）模型，研究了 FFA 期

限结构特征因子对于现货市场的预测作用。研究发现 FFA 期限结构能够作为先行指标，为即期运费的变化提供前瞻性指引。这对于理解和预测航运市场的运费涨跌具有极其重要的作用和价值。

报告人：万相伟（上海交通大学）
题目：Pi Portfolio Management: Reaching Goals while Avoiding Losses
摘要：We propose a new objective for portfolio optimization: a weighted average of the probabilities of achieving specific target levels and avoiding specific loss levels. The objective is relatively easy to understand by non-experts, making it easier to calibrate to individuals' risk profiles. Comparing the associated optimal portfolio to the optimal mean-variance and Merton's portfolios, in our setting the one-fund theorem still holds, but the holdings in the risky assets are nonlinear in their risk premium and/or their return rates. Our model is consistent with a variety of risk seeking and risk aversion behaviors, depending on the chosen weights, current wealth relative to goal levels, and time to maturity.

报告人：邓军（对外经济贸易大学）
题目：Disclosing and Cooling-Off: An Analysis of Insider Trading Rules
摘要：This paper analyzes insider-trading regulations, focusing on two proposals: advance disclosure and " cooling-off periods." The former requires the insider to disclose his trading plan at its adoption, while the latter mandates a delay period before execution. Disclosure increases stock price efficiency but has mixed welfare implications. If the insider has large liquidity needs, in contrast to the conventional wisdom from ``sunshine trading," disclosure can even reduce the welfare of all investors. A longer cooling-off period increases outside investors' welfare but decreases stock price efficiency. Its implication on the insider's welfare depends on whether the mandatory disclosure policy is already in place.

报告人：薄立军（西安电子科技大学）
题目：Large Sample Mean-Field Stochastic Optimization
摘要：We study a class of sampled stochastic optimization problems, where the underlying state process has diffusive dynamics of the mean-field type. We establish the existence of optimal relaxed controls when the sample set has finite size. The core of our paper is to prove, via Γ-convergence, that the minimizer of the finite sample relaxed problem converges to that of the limiting optimization problem as the sample size tends to infinity. We connect the limit of the sampled objective functional to the unique solution, in the trajectory sense, of a nonlinear Fokker-Planck-Kolmogorov equation in a random environment. We highlight the connection between the minimizers of our optimization problems and the optimal training weights of a deep residual neural network. This is a joint work with A. Capponi (Columbia Univ.) and H.F. Liao (Humboldt-Univ. zu Berlin).

报告人：李平（北京航空航天大学）
题目：CoCo 债券与系统性金融风险
摘要：CoCo（contingent convertible，或有可转换）债券是银行发行的一种有价证券，当银行发生经营困难时可以自动转换为股票或者减记，以减轻银行的债务负担。作为具有损失吸收功能的合格资本补充工具，CoCo 债券在美国次贷危机后开始在国内外银行资本结构中占据一席之地。本报告着眼于 CoCo 债券与银行其他证券的关系，研究 CoCo 债券与银行其他相

关证券之间的风险溢出路径，并构建了基于我国 50 家上市银行资产负债表关联性的网络模型，然后研究了 CoCo 债券不同条款设计对我国银行系统性风险的影响。

青年学者最佳论文

报告人：陈鹏展（中国科学技术大学）

题目：A General Approximation Method for Optimal Stopping and Random Delay

摘要：This paper studies the continuous-time optimal stopping problem with infinite horizon under Markov processes. Existing research often focuses on finding explicit solutions under certain assumptions of the reward function or the underlying process, however, these assumptions may either not be fulfilled or hard to validate in practice. We develop a continuous-time Markov chain (CTMC) approximation method to find the optimal solution to the problem, which applies for the general reward functions and underlying Markov processes. In particular, we demonstrate that our method can be used to solve optimal stopping problem with random delay, in which the delay could be either an independent random variable or a function of the underlying process. Compared with the traditional discrete-time Markov chain (DTMC) method, the approximation error of the new method is much easier to control. We prove the convergence of our method and derive the decay rate of the approximation error. Furthermore, we design a two-stage scheme to implement our method efficiently. Numerical results show that our method is accurate and fast under various model specifications.

报告人：颜廷进（华东师范大学）

题目：Optimal Liquidation with Delay in Prices and Trading Signals

摘要：This paper investigates the optimal liquidation in a multivariate delayed state system in which the state includes prices and trading signals. This study is motivated by the high-order vector autoregressive (VAR) models in the microstructure literature. In a continuous-time economy, the high-order VAR state system converges to a system of stochastic functional differential equations with finite memory. We solve the stochastic control problem for optimal liquidation with a control constraint via the maximum principle approach. The optimal liquidation speed is represented by the solution to a coupled forward-backward stochastic differential equation, for which we provide the existence and uniqueness results. We discuss practical cases in which the solution exists globally in semi-closed form and closed form. In a numerical study, we compare our non-Markovian strategy to the Markovian strategy in Cartea et al. (2019) based on the transaction data of two stocks (Market Vectors Semiconductor ETF and Oracle Corporation) with delayed cointegration. We show that the delayed cointegraton feature affects the time synchronization of trading in different assets.

报告人：黄伟桓（南京大学）

题目：Monte-Carlo Estimation of CoVaR

摘要：CoVaR is one of the most important measures of financial systemic risks. It is defined as the risk of a financial portfolio conditional on another financial portfolio being at risk. In this paper we first develop a Monte-Carlo simulation-based batching estimator of CoVaR and study its consistency and asymptotic normality. We show that the optimal rate of convergence of the batching estimator is $n^{-\frac{1}{3}}$, where n is the sample size. We then develop an importance-sampling inspired estimator under the delta-gamma approximations to the portfolio losses, and we show that the rate

of convergence of the estimator is $n^{-\frac{1}{2}}$. Numerical experiments support our theoretical findings and show that both estimators work well.

报告人：黄迎（上海财经大学）
题目：金融市场非流动性、投资者心理与期权收益
摘要：聚焦非流动性对期权收益率的影响和其背后的机制，本文引入包含隐性交易成本和投资者心理两个渠道的新机制进行理论分析，并探讨投资者心理等主观因素在非流动性与期权收益率之间关系中的作用。理论分析认为非流动性对期权收益率有非线性影响且该影响与交易周期、市场特性和金融市场感知风险有关。基于中国期权市场的实证结果证实，标的非流动性与日度 Delta 对冲收益率正线性相关，标的（期权）非流动性与月度（日度）Delta 对冲收益率倒（正）U 型相关；同时，金融市场感知风险对此非线性关系有调节作用，且这可验证投资者心理渠道影响的存在性。

报告人：康俊卿（中山大学）
题目：Quantitative Investing and Price Informativeness
摘要：With imperfect price interpretation, quantitative investing — trading strategies based on the information extraction from quantitative analysis of price — can affect price informativeness through two distinct economic mechanisms. Directly, it brings more informed capital with superior price information. Indirectly, due to common error in institution's price-processing, imperfect price interpretation injects systematic noise into equilibrium outcomes. Given exogenous fund market structure, relatively high investors' capital flows to quantitative funds can make the indirect effect dominate, reducing price informativeness. In an equilibrium with endogenous determined fund market structure, apart from inducing more capital flows to quantitative funds, lowering price information further motivates the formation of quantitative funds. This endogenous strategy-crowding makes noise information interpretation become more correlated, distorting information aggregation and demoting price informativeness. An improvement in information processing capacity might relieve the problem.

报告人：李文迪（西安电子科技大学）
题目：Exact Tail Asymptotics for Fluid Models Driven by an M/M/c Queue
摘要：In this paper, we investigate exact tail asymptotics for the stationary distribution of a fluidmodel driven by the M/M/c queue, which is a two-dimensional queueing system with a discrete phase and a continuous level. We extend the kernel method to study tail asymptotics of its stationary distribution, and a total of three types of exact tail asymptotics are identified from our study and reported in the paper.

报告人：董志龙（西安交通大学）
题目：On Some Extended Mixed Integer Optimization Models of the Eisenberg–Noe Model in Systemic Risk Management.
摘要：The Eisenberg and Noe (EN) model has been widely adopted in the systemic risk management for financial networks. In this paper, we propose a unified EN (U-EN) model, which incorporates both liquidation and bankruptcy costs. We show that the U-EN model is polynomial-time solvable and develop an efficient greedy algorithm to solve it. Then we consider identifying the optimal bailout strategy based on stress testing background and propose a binary EN model with bailout

budget constraint (B-EN-B). The B-EN-B model is shown to be NP-hard. We present analysis on the parameter selection and design some preprocessing procedures correspondingly. A sequential coefficient strengthening algorithm is designed to solve the B-EN-B model. Global convergence of the algorithm is established. Moreover, we show that the systemic risk level obtained from the B-EN-B model can be used as a precaution for the social planner. Experiments based on both simulated data and data from the Chinese listed banks' network are reported to demonstrate the efficiency of the proposed algorithms.

报告人：李童庆（西安电子科技大学）
题目：Centralized Systemic Risk Control in the Interbank System: Weak Formulation and Gamma-Convergence
摘要：This paper studies a systemic risk control problem by the central bank, which dynamically plans monetary supply to stabilize the interbank system with borrowing and lending activities. Facing both heterogeneity among banks and the common noise, the central bank aims to find an optimal strategy to minimize the average distance between log-monetary reserves of all banks and the benchmark of some target steady levels. A weak formulation is adopted, and an optimal randomized control can be obtained in the system with finite banks by applying Ekeland's variational principle. As the number of banks grows large, we prove the convergence of optimal strategies using the Gamma-convergence argument, which yields an optimal weak control in the mean field model. It is shown that this mean field optimal control is associated to the solution of a stochastic Fokker-Planck-Kolmogorov (FPK) equation, for which the uniqueness of the solution is established under some mild conditions.

报告人：张艺赢（南方科技大学）
题目：Distortion Risk Contribution Ratio Measures: Definitions and Comparisons
摘要：Relative spillover effects play a key role in analyzing and comparing systemic risks. In this paper, we introduce the so-called distortion risk contribution ratio measures. Various types of contribution ratio measures are defined and their useful integral-based representations are provided. We establish comparison results between the proposed risk contribution ratio measures of two different bivariate random vectors with same or different copulas. Sufficient conditions are established in terms of stochastic orders, dependence structures, distortion functions and stress levels. We also study the ordering behaviors of these measures on interaction between paired risks. Numerical examples are also presented as illustrations for the conditions and main findings.

报告人：庞小川（中山大学）
题目：Systemic Risk of Optioned Portfolios: Controllability and Optimization
摘要：We investigate the portfolio selection problem against systemic risk that is measured by CoVaR. We demonstrate that the systemic risk of pure stock portfolios is essentially uncontrollable due to the contagion effect and the seesaw effect. Next, we prove that introducing options makes the systemic risk controllable by the correlation hedging and the extreme loss hedging. In addition, we show that using options can also enhance return-risk performance. Then, we illustrate that the optimization problem of optioned portfolio can be solved efficiently as a second-order cone program. Finally, we carry out comprehensive simulations and empirical tests.

报告人：赵朝熠（北京大学）

题目：一般相依性与边缘分布下的最优影响力投资组合理论

摘要：影响力投资通常指代利用非金融信息对资产排名并依此进行资产选择的投资方式，这些非金融信息包括环境、社会与公司治理（Environmental, social, and governance, ESG）指标、对重疾药物研发情况的预期等。本文提出了一套基于影响力指标来构建最优影响力投资组合并量化其投资绩效的理论框架。本文证明，在多因子资产定价模型下，如果影响力指标与残差收益率服从一般的二元联合分布，那么最优影响力投资组合的构造方式与投资绩效将重点取决于该二元联合分布的相依性结构（即 copula）。特别地，在正态分布的假设下，该相依性结构将完全由影响力指标与残差收益率之间的相关系数决定。对于更一般的情形，我们给出了任意 copula 下最优影响力投资组合的权重，并重点研究了其在两类常用的 copula（高斯 copula 与阿基米德 copula）下的特征。我们发现，最优投资组合的构造方式与 copula 的尾部相依性密切相关。此外，如果残差收益率的边缘分布具有偏态或厚尾特征，则最优投资组合在具有极端影响力指标的资产上的权重将有所降低，因为这些资产会具备更高的风险。与传统 Markowitz 投资组合理论相比，使用本文的框架进行影响力投资的一大优势在于，不论资产数如何，投资者均只需估计恒定数量的参数。总体而言，本文提供了一套可用于在任意相依性结构与任意收益率分布下来构建最优影响力投资组合并量化其投资绩效的理论。

分组报告

分组报告（一）：金融中自由边界问题的前沿理论与算法

主持人：邓东雅（河北师范大学）、邢杰（贵州财经大学）

报告人：邓东雅（河北师范大学）

题目：Deep Reinforcement Learning for Momentum-based Trading Strategies

摘要：The adoption of computer-aided stock trading methods is gaining popularity in recent years. As long as there are many trading strategies based on deep reinforcement learning (DRL), little has been paid attention to DRL based Modern Portfolio Theory (MPT) and momentum trading strategies. The purpose of this paper is to prove the profitability of the momentum trading strategies based on DQN and analyze the market mechanism. We validate our approach in China stock market. Experimental results show that the proposed methods are robust and outperforms the conventional Buy-and-Hold and several base-case momentum strategies, significantly increasing returns and reducing risk.

报告人：邢杰（贵州财经大学）

题目：Optimal Entry Decision of Unemployment Insurance under Partial Information

摘要：The aim of this report is to study the optimal time for the individual to join an unemployment insurance scheme which is intended to protect workers against the consequences of job loss and to encourage the unemployed workers to find a new job as early as possible. The wage dynamic is described by a geometric Brownian motion model under drift uncertainty and the problem is a kind of two-dimensional degenerate optimal stopping problems which is hard to analyze. The optimal time of decision for the workers is given by the first time at which the wage process hits the free boundary which therefore plays a key role in solving the problem. This paper analyzes the monotonicity and continuity of the free boundary and derives a nonlinear integral equation for the free boundary. For a particular case the closed-form formula for the free boundary is obtained and for the general case the free boundary is solved by the numerical solution of the nonlinear integral equation. The key in the analysis is to convert the degenerate problem into the non-degenerate one using the probability approach.

报告人：吴皓斐（西南财经大学）

题目：Neural Network Rough Volatility Model and Fast Calibration

摘要：The rough volatility models can characterize certain phenomenas of real financial market that the classical volatility models cannot while the rough volatility models are more intricate to be calibrated. The artificial neural networks provide an alternative means for the option pricing problems thanks for the universal approximation theorem but a large training dataset is needed to achieve the accuracy. In this paper, we propose a neural network rough volatility (NNRV) model by integrating neural networks as components to a rough Heston model with a fast algorithm form, thus we retains the flexibility of neural networks while requiring only a reasonable amount of data for calibration. We explained the calibration problem and conduct some numerical and empirical examples for further exploration.

报告人：周志强（湘南学院）

题目：Convergence Analysis of RBF Contour Integral Methods for High-dimensional Option Pricing PDEs

摘要：This paper studies a hybrid method of radial basis functions semi-discretization and contour integral methods for solving high-dimensional partial differential equations (PDEs) arising in multi-assets options pricing. In the hybrid scheme, the PDEs are semi-discretized by the radial basis functions approximation for space and then the resulted ordinary differential equations are solved by the Laplace transform method which is regarded as the alternative of time-stepping. A fast contour integral method is developed to compute the inversion of Laplace transform. In the contour integral method, the inversion of Laplace transform is converted to a contour integral which can be computed efficiently by quadrature rules. The key point to the contour integral method is to design the contour which requires carefully analyzing the analytical region for the radial basis functions semi-discretization in the Laplace space. The spectral convergence rates of the approach are proved by analyzing the full errors from the radial basis functions semi-discretization and the numerical contour integrals. Numerical examples are carried out to confirm the accuracy and efficiency.

分组报告（二）：数字金融与保险

主持人：曾燕（中山大学）

报告人：赵轶星（广东外语外贸大学）

题目：Impact of Insurance on Capital-constrained Supply Chain Finance under Asymmetric Information

摘要：We examine how the insurer improves the supplier's access to finance in a supply chain and alleviates the effect of information asymmetry. We develop an integrated supply chain model comprising of a capital-constrained supplier, a capital-constrained retailer, a loss-averse bank and an insurer. Supply chain participants have different beliefs of product demand and their operation and financing decisions are based on their beliefs. Our analytic and numerical results give the following three conclusions. First, the supplier should be responsible for the insurance premium. Higher premium proportion borne by the supplier can increase the order quantity and the total profit of the entire supply chain. Second, the performance of the entire supply chain improves as the insurance coverage ratio increases, especially under the case where the bank is loss-averse or the supplier is sufficiently capital-constrained. The purchase of insurance can effectively decrease the loan interest rate and improves the chance for the supplier to obtain a bank loan. Third, the supplier's and the retailer's profits are not maximized under supplier's belief of product demand because of information asymmetry. The use of insurance can mitigate the effect of information asymmetry. The supplier's and the retailer's decisions can approach the optimal decisions under full information if the insurer has more accurate information than the supplier and the bank.

报告人：胡健薇（中山大学）

题目：Home Region Orientation, International Intensity, and Funding Performance of International Crowdfunding Projects

摘要：This paper investigates whether international reward crowdfunding campaigns effectively attract global backers by testing the market penetration level across the globe and explores the

impact of home region orientation and international intensity on crowdfunding performance. Utilizing 24,100 Kickstarter reward crowdfunding campaigns in the technology sector across the triad from 2009 to 2019, our evidence indicates that home-region-specific advantages are among important determinants of fundraising success. We also find home region orientation to moderate the multi-nationality-crowdfunding performance relationship positively. Finally, cross-sectional tests show heterogeneous impacts of home-region advantages across backers' home-country levels of financial inclusion and investor protection.

报告人：林洁瑜（清华大学）
题目：Impact of Insurer Technology Accessibility as Private Information
摘 要：This paper develops a theoretical framework with heterogenous customers and two representative insurers to study the impact of the technology accessibility divide among insurers on insurers' technology adoption decision and market share when insurers' technology accessibility is their private information. Our results show that when the technology is immature (i.e., when it is not cost-saving enough or brings a high additional cost), customers' overestimation of insurers' technology accessibility protects the insurer without access to a new technology from being crowded out of the market, narrows and may even reverse the market share divide between the two insurers. However, when the technology becomes mature, customers' overestimation of insurers' technology accessibility accelerates the appearance of a winner-takes-all market. Our results help explain the digital divide and different market share dynamic of insurance companies in practice, and highlight that it is important but not urgent to eliminate the technology accessibility divide among insurance companies.

报告人：卫丽君（西安交通大学）
题目：C2C 二手电商平台的绿色补贴策略与诚信建设努力水平
摘要：本文刻画了一个"平台主导型"的绿色补贴方案，构建了包含"买家、卖家、C2C 二手电商平台"三方的序贯博弈模型，求解了 C2C 二手电商平台对交易者的最优绿色补贴策略与平台最优诚信建设努力水平，并分析了平台收费规则等参数对 C2C 二手电商平台最优决策与利润的影响. 研究发现: 1) 如果 C2C 二手电商平台收取比例成交费，为获取更多利润，平台应仅对买家进行绿色补贴；如果不收取比例成交费，对买家还是卖家进行绿色补贴并不影响平台利润. 2) 政府对 C2C 二手电商平台的绿色激励存在一个可行区间，不宜过低或过高；平台收取比例成交费有利于发挥政府绿色激励的"杠杆"效果. 3) 当比例成交费费率增加、固定成交费降低或诚信建设成本降低时, C2C 二手电商平台应提升其诚信建设努力水平. 上述结论不仅为"双碳"目标下发挥平台功能、实现绿色消费外部性的内部化提供了借鉴，而且对信息中介型平台的诚信建设具有一定的参考价值.

分组报告（三）：金融市场实证研究
主持人：凌爱凡（上海外国语大学）

报告人：颜廷进（华东师范大学）
题目：Equilibrium Pairs Trading Under Delayed Cointegration
摘要：Cointegration analysis is an econometric tool used to identify equilibrium among assets and construct a pairs trading portfolio. The discrete-time vector error correction model (VECM) for

identifying cointegration includes lag difference terms as explanatory variables, thus permitting delayed adjustment of the deviations from equilibrium. The continuous-time limit of the VECM becomes a stochastic delay differential equation. We investigate the dynamic open-loop equilibrium mean–variance pairs trading strategy under such a delayed cointegration model. The existence and uniqueness results for the equilibrium are offered. We prove in general that the equilibrium strategy can lead to statistical arbitrage under certain conditions that are related to the roots of the corresponding characteristic equation. We obtain an explicit solution for a case with distributed delay. Our empirical study demonstrates the superiority of our strategy over its Markovian counterpart when the model selection result prefers a high-order VECM.

报告人：凌爱凡（上海外国语大学）
题目：A Robust Financing Theory of ICOs under Demand Uncertainty
摘要：The potential market demand has a major impact on the probability of Initial Coin Offerings (ICOs) success of Blockchain-based platforms. However, the exact market demand is difficult to estimate because the goods or services provided by the Blockchain-based platforms are generally hard to estimate and difficult to observe. Here, a robust ICO financing model is developed to cope with the demand uncertainty, which also allows the entrepreneur to be ambiguity aversive to the demand uncertainty. Moreover, we study how the entrepreneur's preference for robustness influences endogenously the optimal token financing ratio and other key factors such as the optimal output, the optimal efforts and the equilibrium token prices. It is shown that the entrepreneur with high degree of ambiguity aversion would transfer more demand uncertainties to investors by increasing token financing ratio, and exhaust fewer efforts to products, which in turn reduces the total value of the venture and the equilibrium token price. This model discloses that ambiguity premiums exist in the token market and tokens are likely to dominate venture capital equity for entrepreneurs with low ambiguity averse degrees.

报告人：庄希颉（北京科技大学）
题目：加密货币新型监管模式研究 ——基于矿工偏好视角
摘要：随着金融科技兴起，基于区块链的加密货币挖掘活动受到金融科技从业者的青睐。然而，加密货币市场也为金融科技的健康发展带来了一系列的挑战。通过挖矿硬件视角探究加密货币市场监督成为了新的监管思路。现存的挖矿硬件主要有 GPU (Graphics processing unit) 和 ASIC (Application-specific integrated circuit) 两种，尽管 GPU 可以挖掘绝大多数的加密货币，但其作为电脑主要部件存在许多其它功能，难于区别其是否用于加密货币挖掘；相比之下，ASIC 在相同价格下拥有更高算力且只用于特定货币挖掘，因此其更加便于监管。基于此，本文基于挖矿硬件——GPU 和 ASIC——探究加密货币市场的监管策略。首先，本文根据加密货币挖掘的历史数据将矿工分为 GPU 和 ASIC 两组，刻画在不同阶段的收益和成本下矿工挖矿行为的决策过程。其次，基于矿工偏好模型对博弈进行求解，得到影响矿工收益的关键要素及其变化规律。随后，本研究对硬件工作时长、硬件价格、算力占比等关键要素进行敏感性分析，提出监管 ASIC 和 GPU 的策略以获取督管主动权。本文发现，随着 ASIC 在周期里运行时间增加、ASIC 价格降低、ASIC 算力在总算力占比减少时，矿工选择 ASIC 意愿会增加。对应地，监管机构通过多种途径降低 ASIC 价格、提高 ASIC 算力以获得更多受监管的算力，从而获得加密货币市场监督主动权。本文基于矿工偏好视角论证了加密货币市场监督的可行性，并对如何规范挖矿行业、发展金融科技市场、稳定硬件行业价格提出了针对性意见。

报告人：臧鑫（北京交通大学）
题目：From Implied Volatilities of Options on Futures to Spot Volatilities
摘要：Under a general class of multifactor stochastic volatility models with jumps, we show that the at-the-money implied volatility of an option on futures, but not on the spot price of underlying asset as considered in the literature, converges to the spot volatility of underlying asset as the option's time-to-maturity tends to zero. Our proof is partly based on the theory of Watanabe (1987) and Yoshida (1992) on analyzing generalized Wiener functionals, and can be viewed as its generalization by taking finite-activity jumps into consideration and incorporating generalized Wiener-Poisson functionals, leading to a novel method for exploring asymptotic properties of jump-diffusions.

分组报告（四）：市场质量与最优执行
主持人：王冠英（天津大学）

报告人：杨念（南京大学）
题目：Optimal Liquidation Using After-hours Fixed-price Trading
摘要：The after-hours fixed-price trading mechanism exists in exchanges such as TWSE, SSE STAR Market, SZSE ChiNext Market, and Nasdaq, which allows investors to trade at the closing price after the regular trading session. In this paper, we consider an investor's liquidation problem using the two sessions in the exchange: the after-hours fixed-price session in the first, and the regular session in the second. We propose a multi-stage dynamic programming model for the liquidation problem. We derive explicit optimal trading strategies to the liquidation problem, in which the transparency of the first session plays an important role. As the price impact to the regular session from unfilled orders disclosed in the fixed-price session increases, investors reduce the volume of orders submitted in the fixed-price session until it reaches zero. In particular, if the unfilled order in the fixed-price session is opaque, then the investor will submit all orders in the fixed-price session. Such strategy also rationalizes the trading behavior of the larger investors documented in the literature such as Næs and Ødegaard (2006).

报告人：王冠英（天津大学）
题目：尾部风险对我国公司债定价的影响研究
摘要：本文选取我国 2008 年至 2019 年的公司债样本，研究尾部风险对公司债收益率的影响。实证结果表明，公司债预期收益率与尾部风险呈正相关关系，做多高尾部风险组债券并做空低尾部风险组债券能产生 0.67%的月平均收益率。低评级、中长期、小规模与低流动性组合的预期收益与尾部风险之间的正相关关系更加显著。本文加入市场风险因子和尾部风险因子，提出我国公司债的四因子定价模型。时间序列回归表明，尾部风险因素对解释公司债超额收益率有显著的边际贡献，四因子定价模型对我国公司债收益率有较强的解释能力。最后，本文对定价因子的独立贡献、模型预测误差和个债的时间序列回归进行检验分析。

报告人：张伟（天津财经大学）
题目：How do IPO Valuations Affect Investors? Implications for Post-issuance Performance of Chinese Enterprises
摘要：Using hand-collected data, this study investigates the relationship between IPO valuations

and post-IPO long term returns based on a sample of 1814 companies. We find a negative impact of IPO valuations on long-term returns, suggesting that the higher IPO valuations are, the lower long term returns. We explore product market competition, information intermediary, and stock price informativeness channels to unravel this effect. IPO Firms with higher valuations promote product market concentration and decrease their market shares. Higher IPO valuations are associated with less analyst coverage and institution participations. Issuers' stock price with higher IPO valuations at the IPO incorporates less informativeness after listing. Specifically, the higher IPO valuations are, the lower stock price nonsynchronicity, and the higher probability of informed trading, bid-ask spread, and volatility. Issuers experience poorer post-issuance returns by managing earnings in three years thereafter. The evidence also shows a negative influence of IPO valuations on ex post operating performance. Result of this analysis is by no means of purely theoretical interests, but it has practical implications for the role of IPO valuations in the growing of financial markets.

报告人：曹沅岚（南京大学）
题目：涨跌停限制放宽对创业板市场质量的影响
摘要：涨跌幅限制制度是我国资本市场最重要、最具特色的交易制度之一，在我国 A 股市场已有二十余年的历史。作为盘中价格稳定机制之一，涨跌停制度的设立初衷是为了缓解突发消息对市场价格的影响，在一定程度上抑制过度投机行为，防止股价过度波动，起到稳定市场秩序与保护投资者的作用，使股市正常发挥优化资源配置、服务实体经济的功能。然而，在实际市场中，已有大量文献研究发现涨跌停制度会带来波动性外溢、价格效率降低、流动性干扰等负面效应。借助 2020 年 8 月 24 日我国创业板市场涨跌停限制放宽这一准自然实验，本文基于股票市场横截面数据，利用 PSM-DID 方法首先对创业板实验组样本进行匹配个股基本面相似的深证主板、中小板控制组样本，随后分别从流动性、波动性与市场效率多角度研究涨跌幅限制放宽对股票市场质量变化的政策效应。研究发现，涨跌停限制的放宽会对创业板市场产生总体负面的影响，如加剧市场波动、减弱市场流动性并且降低市场效率。最后，本文从信息、投资者行为等角度探究政策调整的内在影响机制。

分组报告（五）：期权定价与风险管理
主持人：陈媛媛（南京大学）

报告人：田德建（中国矿业大学）
题目：Pricing Principle via Tsallis Relative Entropy in Incomplete Market
摘要：A pricing principle is introduced for non-attainable q-exponential bounded contingent claims in an incomplete Brownian motion market setting. The buyer evaluates the contingent claim under the "distorted Radon-Nikodym derivative" and adjustment by Tsallis relative entropy over a family of equivalent martingale measures. The pricing principle is proved to be a time consistent and arbitrage-free pricing rule. More importantly, this pricing principle is found to be closely related to backward stochastic differential equations with generators $f(y)|z|^2$ type. The pricing functional is compatible with prices for attainable claims. Except translation invariance, the pricing principle processes lots of elegant properties such as monotonicity and concavity etc. The pricing functional is showed between minimal martingale measure pricing and conditional certainty equivalent pricing under q-exponential utility. The asymptotic behavior of the pricing principle for risk aversion coefficient is also investigated.

报告人：陈媛媛（南京大学）

题目：Counter-cyclical Margins for Option Portfolios

摘要：We propose a counter-cyclical initial margin model for option portfolios. Our model explores the intrinsic netting within a given portfolio of European options and outputs a constant upper bound of the maximum possible loss. This feature would allow option clearinghouses and regulators to gauge the tightest margin levels that are stable. We compare our model with the scenario-based SPAN model and the sensitivity-based SIMM model in terms of the netting efficiency and the procyclical property. Using the SPX options and the interest rate swaptions as examples, we quantify the minimum amount of additional margins needed to make them fully counter-cyclical. We then show how to strike a balance between risk-sensitivity and counter-cyclicality if needed by mixing our model flexibly with a prevailing risk-sensitive margin model.

报告人：谢金言（上海财经大学）

题目：High-Moment Portfolio Selection: A Data-Driven Case

摘要：Mean-variance portfolio selection framework might be inefficient in the real market, despite owning the elegant mathematical formulation. The higher moments, skewness and kurtosis, can characterize the asymmetry and the heavy-tailedness, respectively, meanwhile make the model a nonconvex high-order polynomial optimization problem which is in general NP-hard. Moreover, the use of co-moments tensors also brings the problem of storage and the risk of misestimation. Instead of estimating the co-moments of the risky assets, we consider to estimate the moments of the portfolio directly. We propose two estimators, sample estimator and factor-model estimator, to represent each moment of the portfolio, under which the high order portfolio selection model is dimension-reduced and requires less parameters to be estimated. We accelerate the model solving by pumping the model features into some traditional optimization algorithms. We recognize that the model is separable and use ADMM to solve search for a local minimization point. With the observation that many second order method converges very fast and the gradient and Hessian matrix can be efficiently constructed, we also apply some second order algorithms to accelerate the calculation.

报告人：孙可欣（南京信息工程大学）

题目：Distributionally Robust Optimization with Wasserstein Metric for Multi-period Portfolio Selection Under Uncertainty

摘要：The mean-variance model formulated by Markowitz for a single period serves as a fundamental method of modern portfolio selection. In this study, we consider a multi-period case with uncertainty that better matches the reality of the nancial market. Using the Wasserstein metric to characterize the uncertainty of returns in each period, a new distributionally robust mean-variance model is proposed to solve multi-period portfolio selection problem. We further transform the developed model into a tractable convex problem using duality theory. We also apply a nonparametric bootstrap method and provide a specic algorithm to estimate the radius of the Wasserstein ball. The effects of the parameters on the corresponding strategy and evaluation criteria of portfolios are analyzed using in-sample data. The analysis indicate that the return and risk of our portfolio selections are relatively immune to parameter values. Finally, a series of out-of-sample experiments demonstrate that the proposed model is superior to some other models in terms of nal wealth, standard deviation, and Sharpe ratio.

分组报告（六）：稀疏金融优化

主持人：屈绍建（南京信息工程大学）

报告人： 屈绍建（南京信息工程大学）

题目：Robust Sparse Portfolio Optimization

摘要：This study proposes a sparse mean-variance portfolio optimisation model with transaction costs. First, the classical model is extended to a sparse portfolio optimisation model with sparsity as a decision variable. Second, on account of the existing estimation errors of the mean and covariance matrix of returns, we consider corresponding robust counterparts in different situations. We use a data-driven approach to determine the covariance matrix based on historical data. Finally, because the up-to-date solver cannot solve the resulting models directly, we propose a hybrid algorithm, that combines the cutting plane method with the heuristic method. We verify the feasibility and applicability of the proposed model and algorithm, and conduct a sensitivity analysis.

报告人：黄日朋（滁州学院）

题目：Robust Portfolio Selection with Distributional Uncertainty and Integer Constraints

摘要：This paper studies a robust portfolio selection problem with distributional ambiguity. Different from the assumption that the expected rate of return of risky assets is known, We define an ambiguity set containing the true distribution function based on Kullback--Leibler (KL) divergence. For tractability, we transform the resulting semi-infinite programming problem into a finite convex mixed-integer nonlinear programming (MINLP) problem by using Fenchel duality. To solve the convex MINLP problem efficiently, an extension of the generalized Benders decomposition (GBD) method is proposed. Compared with the traditional portfolio selection methods, the proposed model is not sensitive to the input parameters and easy to understand and operate. Therefore, the proposed method has practical significance for both individual and institutional investors.

报告人：王仲妍（南京信息工程大学）

题目：Distributionally Robust Sparse Portfolio Optimization Model under Satisfaction Criterion

摘要：This paper studies a sparse portfolio optimization model driven by investment goals. We aim to maximize the probability of achieving the target return of the proposed portfolio selection model, while the number of assets the investors hold is limited. For practical significance, we cite a measure of shortfall-aware aspiration level to the portfolio optimization problem and convert it into a CVaR measure. In view of realistic investment process, we introduce transaction costs into the objective function. To make the problem more tractable we bring in a new binary variable and deal with the proposed model via distributionally robust optimization method, leading to a mixed semi-definite positive 0-1 integer programming. A Benders decomposition algorithm is pointedly proposed to resolve the model. Numerical tests are utilized through real market data to validate the proposed method. The results indicate that our algorithm can effectively solve our proposed model and sparse portfolio selection model under satisfaction criterion achieves high robustness and perform better than classical models. Furthermore, we prove that taking the number of assets as the decision variable is a much more efficient method.

报告人：盛茜雯（南京信息工程大学）
题目：Distributionally Robust Sparse Portfolio Optimization
摘要：This paper presents a distributionally robust model for portfolio optimization considering sparsity. The mixed integer programming problem of the robust counterpart is derived. A new algorithm is proposed to solving the resulting problem. Numerical tests are given to show the efficiency of the proposed methods.

分组报告（七）：期权定价与风险管理
主持人：丁凯琳（中国科学院数学与系统科学研究院）

报告人：丁凯琳（中国科学院数学与系统科学研究院）
题目：Pricing Arithmetic Asian and Amerasian Options: A Diffusion Operator Integral Expansion Approach
摘要：In this paper, we propose a new explicit series expansion formula for the price of an arithmetic Asian option under the Black-Scholes model and the Merton's jump model. The method is based on an equivalence in law relation together with the diffusion operator integral (DOI) method proposed by Heath and Platen (2002). The method yields explicit series expansion formula for the Asian options' prices and Greeks. The theoretical convergence of the expansion to the true value is established. We also consider the American Asian option (i.e. Amerasian option) and derive the corresponding expansion formula through the early exercise premium (EEP) representation. Numerical results illustrate the accuracy and efficiency of the method as compared to benchmarks in the literature.This talk is based on a joint work with Zhenyu Cui and Xiaoguang Yang.

报告人：郭芝宇（北京大学）
题目：Option pricing under an endogenous regime switching GARCH model
摘要：This paper develops an endogenous regime-switching GARCH (ERS-GARCH) model which combines the endogenous regime switching introduced by Chang et al. (Chang, Y., Choi, Y., & Park, J. Y., A new approach to model regime switching. Journal of Econometrics, 2017, 196(1), 127-143.) with GARCH models and studies option pricing under this framework. In this model, the latent factor which determines regimes is allowed to be correlated with the innovation to the observed time series. We propose a new lattice algorithm that can be applied to this model to price European and American options. We investigate the convergence of option prices produced on the proposed lattice to their true values computed using Monte Carlo simulation. Several numerical experiments are conducted to assess the sensitivity of the state transition probabilities to some key factors, and to investigate how the presence and degree of endogeneity in regime switching affects option prices.

报告人：李童庆（西安电子科技大学）
题目：Approximating Nash Equilibrium for Production Control with Sticky Price
摘要：In this talk, I introduce a mean field game problem arising from the production control for multiple firms with price stickiness in the commodity market. The price dynamics for each firm is described as a (controlled) jump-diffusion process with mean-field interaction. Each firm aims to maximize her expectation of cumulative net profit coupled with each other through price processes. By solving the limiting control problem and a fixed-point problem, an explicit approximating Nash equilibrium is constructed when the number of firms grows large.

分组报告（八）：风险估计与投资组合选择

主持人：崔翔宇（上海财经大学）

报告人：王天翔（华东师范大学）

题目：Efficient Estimation of a Risk Measure Requiring Two-Stage Simulation Optimization

摘要：This paper is concerned with the efficient estimation of the risk measure of a system where the estimation requires solving a two-stage simulation optimization problem. The first stage samples risk factors that specify a second stage simulation optimization problem. The second stage solves a simulation optimization problem and outputs the best performance of the system under the realized risk factors, which are then aggregated across all first stage samples to produce an estimate of the risk measure. Applications of such an estimation scheme arise frequently in important industries such as financial, healthcare, logistics, and manufacturing. Because a large number of first stage samples are typically needed, each of which requires solving a computationally expensive simulation optimization problem, the two-stage simulation optimization approach faces a major computational efficiency challenge. In response to this challenge, this paper proposes a sequential simulation budget allocation procedure that determines the allocation of simulation budget based on a score known as revised probability of sign change for each decision under each scenario. The consistency of the proposed procedure is proved and the computational efficiency gain of the proposed is demonstrated using both benchmark test functions and two test cases in the context of financial portfolio risk estimation and healthcare system resilience estimation.

报告人：张志远（上海财经大学）

题目：Testing for Stationarity of Intraday Volatility Curves

摘要：We formally establish the theory of testing for stationarity of time series of intraday volatility curves using high-frequency financial data. The testing theory is built on a novel functional invariance principle, which is the right fit for the high-frequency data setting and of independent theoretical interest, for α-mixing processes. The power properties of the proposed tests are analyzed under deterministic trend alternative hypotheses. Simulation results corroborate our theoretical findings. An application of the tests to an e-mini S&P 500 futures data set is also provided.

报告人：崔翔宇（上海财经大学）

题目：Dynamic Portfolio Selection and Factor Learning

摘要：We study the multi-period mean-variance portfolio selection problem under factor models, where the investors have the limited attention to conduct factor learning and decide which factor to learn in a given period. We derive the optimal attention allocation strategy and optimal portfolio selection strategy, and propose the numerical algorithm to obtain the strategies. Our empirical analysis shows that the attention allocation strategies are quite stable over different time periods. The investors tends to learn the market factor when the absolute value of HML factor is not too large, and the difference between MKT factor and SMB factor is not too large. The investors tend to learn the SMB factor the absolute value of HML factor is not too large, and the difference between MKT factor and SMB factor is large. While the investors only learn the HML factor when the absolute value of HML factor is large and the absolute value of MKT factor is small. Furthermore, the efficient frontier is improved by the factor learning a lot.

报告人：陈燕（云南财经大学）
题目：Dynamic Volatility Spillover and Market Emergency: Matching and forecasting
摘要：Volatility spillover can cause successive and similar volatilities in different markets even financial or economic crises. Then, many related studies have been presented to analyze it from theoretical and empirical perspectives and show its properties and reasons. However, can this phenomenon show or forecast the important market emergency? Also, how to match them and then provide the investment and management suggestions? This could be an interesting topic and also the main issue in this study. To do this, we first design a new dynamic volatility spillover index (DVSI) to quantitatively measure the volatility spillover effect and its dynamic trends. Based on this, we further propose the market emergency matching (MEM) model to match the dynamic volatility spillover effect with the market emergency and show its foreseeability and causality. Thus, we can predictively deal with the market emergency from the dynamic volatility spillover perspective, which could be more effective and valuable to study this financial phenomenon. Lastly, an empirical study on nine international energy markets is given in detail to show these new methods and derive some interesting conclusions. For example, we find that the proposed methods can not only show the features of the volatility spillover phenomenon among energy markets but also effectively forecast the energy market emergencies and their development trends, which is an important contribution of this study. Thus, this paper provides a new tool to analyze market emergencies and their risk even financial crises.

专题报告（九）：金融风险与预测
主持人：黄金波（广东财经大学）

报告人：黄金波（广东财经大学）
题目：经济风险、前瞻信息与收益率预测
摘要：本文结合诺奖得主 Aumann 等人提出的经济风险指标和期权价格隐含的前瞻信息，运用现金流复制法提取期权价格中的隐含经济风险，并将其运用到我国金融市场的风险测算与收益率预测。基于上证 50ETF 及其期权数据的实证结果发现：1. 我国期权市场隐含股票市场未来的风险信息，从期权价格中提取的隐含经济风险指标承担与美国恐慌指数 VIX 类似的功能，即市场走强时风险值下降，而当市场走弱时风险值上升；2. 样本内检验发现隐含经济风险包含标的资产收益率的前四阶矩信息，进而可以预测标的资产未来收益率，且二者呈显著负相关关系；③样本外预测表明隐含经济风险对收益率的预测能力显著优于历史平均收益率，也优于“向后看”的经济风险指标，基于隐含经济风险构建的资产配置策略可以获得更优的投资收益。本文的研究结论具有重要的政策启示和实际价值。

报告人：王意德（南京大学）
题目：跨市场信息传递与股市波动预测研究
摘要：全球金融活动的深度融合加速了信息在市场间的传递，信息因素已成为驱动资产价格波动的关键因素。本文首先使用基于滚动窗口技术的转移熵方法测度国际主要股票市场向中国股市传递的动态信息流，结合线性与非线性格兰杰因果关系检验方法分析国际股票市场信息流对中国股市波动的影响机制，并在 HAR 族基准模型的基础上，结合基于非线性预测机制的机器学习方法，探究国际股票市场信息流因子对中国股市波动的解释与预测能力。实证结果表明，国际股票市场信息流对中国股市波动存在显著的线性影响机制及非线性影响机

制，且国际股票市场信息流因子对中国股市不同期限的波动预测具有异质性，即信息流因子对中国股市的中长期波动预测有解释能力，且主要通过非线性影响机制提升了样本外中长期波动的预测精度，但对日度短期波动缺乏解释能力与预测价值。

报告人：赵靖（清华大学）
题目：中国信用债市场的共同风险因子：基于截面收益的证据
摘要：我国信用债市场近年来得到了高速发展，但债券违约事件逐渐常态化，刚性兑付预期被打破，这对投资者的风险管理能力提出了更高的要求。因此，研究影响信用债截面收益的风险因素，对于提升债券投资收益、加强风险防范具有重要意义。本文以 2007 年 1 月至 2021 年 12 月我国 19,097 只信用债为研究样本，通过投资组合排序和 Fama-MacBeth 截面回归，发现信用风险、下行风险和偏度风险对我国信用债预期收益的截面差异有显著预测作用，同时市场还存在规模效应和短期反转效应，但未发现显著的流动性溢价；利用 Fama and French (2020)提出的截面因子模型方法，本文进一步构建了包含市场因子、信用风险因子、偏度风险因子、规模因子和反转因子的中国信用债市场五因子模型；最后，通过对多种双重排序构建的测试资产进行定价有效性分析，相较于传统的债券三因子和股票三因子模型，该五因子模型能更好地解释中国信用债的截面收益，对探究我国信用债市场的因子模型进行了有益的尝试。

报告人：何欣（湖南大学）
题目：Asset Pricing with Panel Tree under Global Split Criteria
摘要：We introduce P-Tree—a class of interpretable tree-based models with global split criteria for analyzing panel data—to split the cross-section of asset returns, generating stochastic discount factors and diversified test portfolios. P-Tree prevents overfitting and visualizes nonlinearities among both macroeconomic and asset-specific variables. Long-term reversal, volume volatility, and market equity interact to drive cross-sectional return variation in U.S. equities, and inflation constitutes the most critical regime-switching interacting with firm characteristics. P-Trees consistently outperform extant models at pricing individual asset and portfolio returns, while delivering profitable and transparent trading strategies (e.g., 2.46% monthly alpha and 1.71 annualized out-of-sample Sharpe ratio).

分组报告（十）：投资组合优化
主持人：吴伟平（福州大学）

报告人：叶一帆（香港科技大学（广州））
题目：On the Optimal Combination of Portfolio Strategies
摘要：The classical estimated Markowitz's mean-variance portfolio rules using sample-based return moments often yield poor out-of-sample (OOS) performance. In this paper, we first propose a new expected OOS utility function that complements previous widely used utility function with an extra variance component. Second, under this new utility function we derive an optimal four-fund combination strategy that invests in the sample tangency portfolio, the sample global minimum-variance portfolio, the $1/N$ portfolio, and the risk-free asset. We show analytically that this strategy achieves the maximal expected OOS utility among all combined strategies investing in the four funds and also maximizes the expected OOS Sharpe ratio. The implementable version of the

strategy beats other combined strategies and the $1/N$ rule in both simulated and real portfolio return data.

报告人：马越（兰州大学）
题目：Robust Strategy for a DC Pension Plan with Information-Processing Capacity
摘要：We investigate an information-processing capacity based robust investment problem for a DC (Defined Contribution) pension plan. In particular, a pension manager is assumed to analyze the market with her information-processing capacity and make robust investment decisions to hedge the risks, such as financial market risk, inflation risk and salary risk. We characterize the manager's information-processing capacity in a continuous time model and propose a framework considering the link between the DC pension manager's information-processing capacity and the ambiguity aversion level. By applying the dynamic programming approach, we derive a robust optimal investment strategy and the corresponding value function explicitly. Thanks to the traceability of our model, we show that a better information-processing capacity tends to impact the level and structure of the DC manager's investment in the stock and enhances the DC manager's overall performance. Finally, some numerical examples are provided to show the effects of the parameters on the strategies and to explain the economic meaning of our theoretical results.

报告人：郑田田（北京大学）
题目：High-dimensional Portfolio Optimization Based on Tree-Structured Factor Model
摘要：Certain characteristics are known for their predictability of cross-sectional expected stock returns. We propose a novel portfolio optimization procedure to incorporate multiple characteristic information, which requires minimum parameters and no stringent assumptions. Instead of investing in individual stocks, we conduct portfolio optimization on a large panel of characteristic portfolios generated by a tree-structured portfolio sorting method, which can capture the non-linearities and interactions between stocks' characteristics to help predict the expected returns. Simulations demonstrate that our tree-structured Lasso-based mean-variance (MV) strategy has better out-of-sample Sharpe ratios than the three benchmark strategies: the stock-based MV strategy, the double-sorted portfolio-based MV strategy, and the tree-structured portfolio-based MV strategy. We use daily stock data from the Chinese A-share market from 2001 to 2021 to compare the out-of-sample performances of the tree-structured Lasso-MV with other classical strategies, such as global minimum variance (GMV) and equally weighted (EW) strategies. The empirical results suggest that the tree-structured Lasso-MV strategy can achieve both a higher Sharpe ratio and a smaller standard deviation. These results prove to be robust under different parameter combinations.

报告人：吴伟平（福州大学）
题目：Mean-variance Hybrid Portfolio Optimization with Quantile-based Risk Measure
摘要：On recognizing the importance of incorporating different risk measures in the portfolio management model, this paper studies the dynamic hybrid portfolio optimization model combining the spectral risk measure and the Value-at-Risk in the mean-variance (MV) formulation. With the help of the quantile optimization technique and martingale representation, we provide the solution framework for these problems. We further develop the closed-form portfolio policy when all the market parameters are deterministic. Compared with the classical continuous-time mean-variance (CTMV) portfolio policy, our hybrid model tends to hold a higher position of the risky asset in the

good market states and a less risky asset in the bad market states. Such a desired property leads to a promising performance in numerical experiments. The dynamic hybrid policy enhances the Sortino ratio and reduces the downside risk of the CTMV model. Furthermore, it may significantly reduce the risk (both variance and downside risk) compared with its static counterpart.

报告人：金成能（上海财经大学）
题目：Constrained Optimal Execution in Limit Order Book Market with Power-shaped Market Depth
摘要：This work studies the constrained optimal execution problem in a limit order book (LOB) market with a power-shaped market depth, which includes the classical block-shaped market depth as its special case. The price impact generated from our power-shaped market depth becomes a non-linear function, which is more consistent with the empirical studies. We also consider a class of state-dependent upper and lower bound constraints on the trading strategy, which includes non-short selling constraint as its special case. Due to the non-linear price impact and the strategy constraints, it is quite difficult to solve the problem analytically. To overcome this difficulty, we propose an approximate method and claim that our approximate error can be guaranteed by an upper bound. From some illustrative examples, we find that the execution policy would be significantly affected by the power-shaped market depth and the strategy constraint. For a special model with the stochastic block-shaped market depth and infinite market resilience, we successfully derive the analytical solution for such an optimal execution problem by utilizing the state separation property induced from its structure. Finally, we adopt such an analytical solution to demonstrate that the model admits no price magnification opportunity for the two-sided trading strategy.

报告人：战昕彤（复旦大学）
题目：Unlocking ESG Premium from Options
摘要：We find that option expensiveness, as measured by implied volatility, is higher for low-ESG stocks, showing that investors pay a premium in the option market to hedge ESG-related uncertainty. Using delta-hedged option returns, we estimate this ESG premium to be about 0.3% per month. All three components of ESG contribute to option pricing. The effect of ESG performance heightens after the announcement of Paris Agreement, after speeches of Greta Thunberg, and in the aftermath of Me-Too movement. We find that investors pay ESG premium to hedge volatility, jump, and other higher moment risks. The influence of ESG on option premia is stronger for firms that are closer to end-consumers, facing severer product competition, with higher investors' ESG awareness, and without corporate hedging activity.

分组报告（十一）：金融风险管理
主持人：刘志峰（海南大学）

报告人：戴志锋（长沙理工大学）
题目：Forecasting the Equity Risk Premium: a new Method Based on Wavelet De-noising
摘要：Forecasting the equity risk premium is notoriously difficult due to no clear tendency of the raw series. In this paper, we firstly de-noise the in-sample original returns series via wavelet method, and construct regression models to forecast the out-of-sample equity risk premium. Our new models

can obtain superior out-of-sample performance compared with the historical average and other counterpart models. A mean-variance investor can realize sizeable economic gains by allocating asset through the new approach. Moreover, our methods generate robust performance under different settings from both statistical and economic perspectives.

报告人：刘志峰（海南大学）
题目：台风灾害与 ESG 披露：实际风险还是感知风险？
摘要：本文研究台风登陆对中国上市公司 ESG 信息披露水平的影响，将台风登陆作为外生性冲击，台风登陆时点作为干预时点，使用双重差分方法来研究台风对不同距离的公司披露决策的影响。将具有 2011 年到 2020 年 ESG 披露得分的上市公司按与台风登陆地区的距离分成三组以区分台风实际风险和感知风险：（1）实际风险公司；（2）感知风险公司；（3）其他无台风风险公司。分别将实际风险公司和感知风险公司作为处理组，其他无台风风险公司作为控制组，运用双重差分法，研究台风实际风险与感知风险对 ESG 披露的不同影响。我们发现，与无台风的其他公司相比，实际风险公司和感知风险公司的 ESG 披露水平在台风前后均有显著变化，且台风对不同距离的公司 ESG 披露行为有不同的影响。其中，遭受台风实际冲击的管理者通过增加 ESG 披露来应对台风风险，而由于台风凸显效应，感知风险增加的管理者则通过减少 ESG 披露来应对。台风实际风险和感知风险对上市公司 ESG 披露行为的不同影响在台风登陆效应、台风强度和行业异质性的分析中均表现出差异。最后通过不同的时间窗口、距离和控制组进行了稳健性检验，发现本文的结果是稳健的。

报告人：胡凡（广东财经大学）
题目：ETF 的双刃剑: 上升的贝塔和下降的波动率
摘要：基于 2012-2020 年股票和 ETF 分钟级高频交易数据，本文探究我国 ETF 对股票风险的影响。本文发现 ETF 导致成份股贝塔上升和特质波动率下降，即系统性风险上升的同时特质性风险下降。进一步探究背后微观机制，发现 ETF 能够降低交易成本、提高交易效率和减少金融摩擦，进而提升了股票定价效率。一方面，定价效率提升意味信息扩散速度趋同，导致成份股收益率相关性显著上升。另一方面，ETF 促进了共同信息及时融入股价，进而降低了成份股特质波动率。ETF 套利假说无法解释本文的研究发现。相对于宽基、跨市场 ETF、深交所 ETF，窄基 ETF、单市场 ETF、上交所 ETF 更能够促进股价稳定，上市公司信息透明度、流动性水平有助于促进 ETF 降低成份股特质波动率。2019 年 ETF 规则修订显著提升了跨市场 ETF 和深交所 ETF 信息效率。本文的研究结论有助于监管层正确认识和把握 ETF 的发展方向，在审慎监管前提下有序推进金融创新。

报告人：王琳玉（浙江财经大学）
题目：“好”、“坏”波动非对称及其风险信息容量——基于上证 50ETF 期权的实证分析
摘要：波动率反映了资产价格的变动情况，波动越大则预示着市场越不稳定。本文基于上证 50ETF 期权数据，通过“好”波动和“坏”波动的相对差值构造隐含波动非对称指标，并探索其风险信息容量。通过研究发现：1)隐含波动非对称值越大，股票未来收益越低。其预测作用在未来 30 天和 60 天非常显著，但随着时间的推移，其预测能力逐渐减弱且预测系数有转正的趋势。在更换隐含波动非对称的测度方法以及加入控制变量后上述结论仍成立。2)期权的到期日越长，隐含波动非对称的变动越明显。3)在信息聚集阶段以及投资者情绪异常期间，隐含波动非对称的预测能力更强。

报告人：赵林海（华侨大学）

题目： The Identification of Systemically Important Banks Based on Tsallis Entropy with Application to Chinese Banks

摘要：The identification and supervision of systemically important banks is crucial for banking supervisors to address systemic risks to the financial system. The prevalent identification methods are biased due to the fact that less attention is paid to the indirect connections between banks, local topological information and global topological information of the bank network. This paper proposes a novel method based on Tsallis entropy for measuring the systemic importance of banks. Each bank is regarded as a node in the bank network and the influence of bank size will be excluded. The method integrates not only the influence of the nodes themselves and their neighborhood nodes, but also the local and global topological information of the network into account, which effectively improves the accuracy of identifying the systemic importance of banks. Granger causality test is used to construct the directed weighted graph of the bank network. And the influence of nodes with local and global topological information is measured through methods such as structural hole constraint coefficients and k-shell centrality. Then Tsallis entropy is adopted to calculate the complexity of the bank network, and the systemic importance of banks is identified. We conduct empirical analysis by employing the data of stock prices of 16 listed banks in the Chinese securities market with sample period from October 2007 to December 2020 and adopt the method presented in this paper to rank the systemic importance of these banks. The analysis shows that the ranking is in accordance with the reality and the method will promote the accuracy of identifying systemically important banks.

报告人：郭艳红（南方科技大学）

题目： 地方政府债券对我国金融市场的尾部风险溢出研究——基于动态网络模型

摘要：本文基于动态网络模型构建了以我国各个地方政府和上市金融机构为节点的尾部风险溢出网络，并根据此动态网络的变化进一步探索地方政府债券对我国金融市场的尾部风险溢出。具体来说，我们在 Betz et al.（2016）的动态尾部风险传染网络构建体系的框架下，搜集各个地方政府债券指数、上市金融机构股价指数以及一些宏观变量，采用 FARM-Selection 方法解决了此网络构建中的高维回归问题。其次，我们将此网络进行可视化处理，并根据我国的一些相关政策和新闻事件对此网络进行分析。研究结果表明，地方政府债券对我国金融市场存在一定的尾部风险溢出，而我国的金融市场对地方政府债券也存在一定的尾部风险溢出；另外，我国政府发布的相关政策和新闻也会对此尾部风险传染网络产生冲击，包括网络的密度、中心度等；最后，我国的地理位置等因素也对此尾部风险溢出网络产生了重要的作用，具体表现为同一地区的上市商业银行与地方政府债券指数存在一定的风险溢出关系。这些实证发现对我国进一步防控地方政府债务风险与金融系统性风险均有重要的意义。

分组报告（十二）：金融波动

主持人：曹栋（西安电子科技大学）

报告人：张冬灵（西安电子科技大学）

题目：国内外黄金市场间的联动关系研究——以上海、伦敦和纽约市场为例

摘要：上海黄金交易所推出“上海金”后，增加了我国在国际黄金定价权中的权重，加快了我国黄金市场的国际化进程，增进了我国与国际黄金市场的联系，但是信息和风险在不同黄金市场间的传递过程中也带来了风险，如何消化国际金价波动带给国家和普通投资者的风险，提高我国黄金市场影响力，是需要我们密切关注的。本文将运用 Granger 因果检验、DCC-

GARCH 模型和溢出指数模型分别从因果关系、动态相关性以及波动溢出三方面来研究上海黄金市场和伦敦黄金市场以及纽约黄金市场之间的联动关系，研究结果表明：伦敦和纽约两市场间动态相关性更强更稳定，我国黄金市场与两者的动态相关性较弱还不稳定，主要是因为我国黄金市场交易品种少，流动性比较弱的原因；溢出指数在经济环境不确定性因素较多时表现出明显的上升趋势，在经济环境平稳时则较低；无论均值溢出还是波动溢出，伦敦和纽约黄金市场始终是溢出的主要发出者，而我国黄金市场更多是这两个市场的"影子市场"。总体来看，我国黄金市场的影响力在不断增强，但相比国外两大市场还有很大进步空间。

报告人：岳东岐（西北大学）
题目：中国金融科技发展能带来制造业高端化吗?——来自我国省际面板数据的经验证据
摘要：如何有效推动制造业高端化是深入实施制造强国战略的重要抓手。本文分析金融科技发展对制造业高端化的影响及其机制，选取 2010-2021 年我国省级制造业细分行业数据，并使用全面 FGLS 方法和中介效应模型实证检验金融科技与制造业高端化发展的关系。研究结果表明：金融科技发展显著推动了制造业高端化；金融科技可以通过企业风险承担、制造业效率和金融效率三个效应，进而影响制造业高端化；异质性分析表明，东部省份金融科技发展对制造业高端化的推动作用最强，中部次之，西部最弱。基于上述研究结论,本文提出了相应政策建议。

报告人：郭涅培（西安电子科技大学）
题目：应用性研究比基础性研究更能提高公司研发绩效吗？----来自中国上市公司的证据
摘要：研发（R&D）是促进企业和经济发展的重要动力。然而，现有文献虽然对 R&D 投入和研发绩效进行研究，但缺乏对 R&D 不同投入及其研发绩效关系的分析。基于中国 2010—2019 年上市公司的数据，本文实证分析了基础性研发投入、应用性研发投入对其研发绩效的影响。结果表明，基础性研发投入和应用性研发投入有显著性区别，其研发绩效也有显著区别。研究结果同时显示，基础性研发投入、应用性研发投入以及总投入都对研发绩效有显著性正面影响，且基础性研发投入比应用性研发投入对研发绩效的影响更大。这些研究结果表明，基础性研究比应用性研究更为重要，因此，加强基础性研究应是提高企业研发绩效、促进经济高质量发展的重要途径。

报告人：樊芮伲（西安电子科技大学）
题目：基于神经网络和投资者情绪的股市指数预测研究
摘要：投资者情绪是股票市场的重要影响因素，然而，现有文献利用投资者情绪预测股票市场 的研究相对不足。基于行为金融理论，本文对 LSTM 神经网络模型进行修正，构建了投资者情绪指 数，并通过爬虫技术获取投资者评论数据，利用 LM 情绪词典方法对收集和筛选后的数据进行分析， 据此对修正的 LSTM 模型进行了验证。结果表明，利用投资者情绪修正的预测模型预测精度达到 95%， 模型可信度度高，不仅丰富了投资者行为理论，而且具有实践意义。

报告人：孟纬茜（西安电子科技大学）
题目：境外机构投资者对企业 ESG 的影响研究
摘要：随着我国资本市场的不断开放和发展，境外机构投资者在国内 A 股市场上的持股数量和比例不断攀升，对拓宽企业资金来源、改善企业治理结构等方面发挥着重要的作用。在目前国内"碳中和"和"碳达峰"的"双碳"背景下，许多机构投资者，尤其是更早接触和熟悉 ESG 的境外机构投资者加强了对国内上市企业 ESG 的关注，以此更好地实现其责任投资与价值投资的目的。本文基于 2017 至 2020 年沪深 A 股上市公司的面板数据,引入境外机构投

资者（含 QFII 和陆股通）持股信息，深入研究了境外机构投资者与企业 ESG 的关系。结果表明：境外机构投资者持股会显著促进企业 ESG 绩效，且持股比例越高，企业 ESG 绩效越好.进一步研究发现，不同产权性质、不同行业性质的企业在受到境外机构投资者持股时，ESG 绩效的响应结果也存在显著的异质性。从企业产权性质角度分析，境外机构投资者持股行为对于国有企业 ESG 促进作用更明显，但是随着持股比例增高，对于非国有企业的 ESG 边际提升效果更强。具体细分产业性质后发现，相对于国有企业和民营企业，境外机构投资者持股比例的提升对于外资企业的 ESG 促进作用中更为显著，而国有企业中，对中央国有企业的 ESG 促进作用更为显著；从行业性质角度分析，境外机构投资者持股行为对高污染企业的 ESG 影响程度更强，但随着持股比例的提升，对于非高污染企业的 ESG 促进作用更为显著；此外，本文研究发现企业绿色创新在影响路径中还发挥了部分中介作用。本研究结论有助于理清境外机构投资者对企业 ESG 影响的路径，为促进资本市场进一步开放，引导企业实现绿色化转型提供了参考。

报告人：肖书华（中山大学）
题目：Optimal Systemic Risk Bailout: A PGO Approach Based on Neural Network
摘要：The bailout strategy is crucial to cushion the massive loss caused by systemic risk in the financial system. There is no closed-form formulation of the optimal bailout problem, making solving it difficult. In this paper, we regard the issue of the optimal bailout (capital injection) as a black-box optimization problem, where the black box is characterized as a fixed-point system that follows the E-N framework for measuring the systemic risk of the financial system. We propose the so-called “Prediction-Gradient-Optimization” (PGO) framework to solve it, where the “Prediction” means that the objective function without a closed-form is approximated and predicted by a neural network, the “Gradient” is calculated based on the former approximation, and the “Optimization” procedure is further implemented within a gradient projection algorithm to solve the problem. Comprehensive numerical simulations demonstrate that the proposed approach is promising for systemic risk management.

分组报告（十三）：资产配置
主持人：徐凤敏（西安交通大学）

报告人：周骐（华南理工大学）
题目：行业配置、聚类程度与基金业绩
摘要：基金市场是过去 20 年来市场经济国家发展最迅速、规模最大的大众金融投资工具，基金的筛选难度已经不亚于股票．然而，关于基金的研究多数是基金业绩的归因分析，鲜有从基金经理、基金市场和投资者综合的角度研究基金风险，基金筛选策略的研究更是少之又少．本文首先以 Feldman et al. (2020)构建的美国主动型管理基金市场模型为基础，结合复杂网络方法，提出了适合度量中国基金市场发展程度的行业配置聚类程度指标，并运用基金经理行业配置聚类程度量化了基金经理努力程度．在此基础上提出基金经理和投资者的优化问题，并推导出均衡策略下基金市场行业配置聚类程度和基金经理努力程度与基金收益的数量关系．然后运用递归估计方法进行实证分析．最后，在理论推导和实证分析的基础上，提出了一个基于基金经理努力程度的基金筛选策略，完善了“理论+实证+策略”的投资组合分析框架．本文的研究结果亦可为 FOF 投资策略的研究提供参考。

报告人：赵志华（西安电子科技大学）

题目：Robust Enhanced Indexation Optimization with Sparse Industry Layout Constraint

摘要：In this talk, we investigate an enhanced indexation methodology using robust Conditional Value-at-Risk (CVaR) and group-sparse optimization. A featured difference from the existing literatures is to describe the tail risk using the worst-case Conditional Value-at-Risk of excess returns (WCVaR-ER), and the process of industry selection using a weighted-norm constraint. We develop an accelerated alternating minimization algorithm (AMA) for solving this problem, and show that the global convergence rates of the method in terms of the primal and dual residuals is . We also conduct empirical tests on the actual data sets from China Shanghai-Shenzhen stock market to compare our proposed strategy with the CVaR-Cardinality, CVaR-LASSO and naive strategies for enhanced indexation. The computational results demonstrate that our approach generally produces an industry-sparse portfolio with higher out-of-sample excess return, lower tail risk and more reasonable industry layout.

报告人：王一君（河南财经政法大学）

题目：Optimal Investment Strategy for DC Pension Funds with a Return of Premium Clause and Predictions about Stock Returns

摘要：This work studies the optimal investment strategy for DC pension funds with a return of premium clause and predictions about stock returns. The return of premium clause protects the rights of participants who die before retirement, under which beneficiaries are allowed to withdraw the accumulated premiums. Assume that the pension fund invested in the financial market consists of one risk-free asset and one risky asset. The return of the risky asset is affected by both observable and unobservable factors, reflecting that changes in the return of risky assets cannot be perfectly explained based on the observable information. Adopting the Kalman filter technique and dynamic programming method, we transform this partial information problem into a complete information problem and derive the optimal investment strategies by maximizing the CRRA utility of the pension fund at the terminal time. Moreover, numerical illustrations analyze the effects of model parameters on optimal portfolios. We find that the wealth of pension funds with a return of premium clause is lower than those without such clauses due to the extractable contribution. Moreover, we find that this wealth deviation will also gradually expand since the probability of participants' death increases with age.

报告人：马贵元（西安交通大学）

题目：Dynamic Mean-variance Problem with Frictions

摘要：We study a dynamic mean–variance portfolio selection problem with return predictability and trading frictions from price impact. Applying mean-field type control theory, we provide a characterization of an equilibrium trading strategy for an investor facing stochastic investment opportunities. An explicit equilibrium strategy is derived in terms of the solution to a generalized matrix Riccati differential equation, and a sufficient condition is also provided to ensure the latter's well-posedness. Our solution indicates that the investor should trade gradually towards a target portfolio which accounts for return predictability, price impact and time-consistency. Moreover, an asymptotic analysis around small liquidity costs shows that the investor's target portfolio is an equilibrium portfolio without price impact in the first-order sense, and that her first-order approximated value function does not deteriorate significantly for sufficiently small liquidity costs.

Finally, our numerical results demonstrate that the target portfolio is more conservative than an equilibrium portfolio without price impact.

报告人：李俊雪（江西师范大学）

题目：When Trackers are aware of ESG: Does ESG Rating Matter to the Performance of Tracking Error Portfolios?

摘要：With the increasing severity of greenhouse effect and environmental pollution, ESG investing is paid close attentions in recent years. This paper studies how ESG scores and investors' ESG preference affect the performance of tracking portfolios. We embed ESG information and ESG preference of investors into the mean-variance model, and then solve explicitly the new tracking portfolio model. The theoretic analysis shows that ESG information can improve the returns, information ratio (IR) and other performances of tracking portfolios. There exists an inverse `U'-type ESG-IR frontier which is the relationship between ESG scores and IR of tracking portfolios. Being consistent with these theoretic predictions, numerical results with real market benchmark show that ESG information and ESG preference of investors have the positive impact on the realized returns, IR, net aggregate returns and cumulative returns of tracking portfolios. Our results provide several valuable references for investors with ESG awareness and ESG preferen

河北师范大学商学院简介

河北师范大学商学院正式成立于 2004 年 6 月，是河北省重要的经济学和管理学研究基地和经管类高级人才培养培训基地。

学院设有理论经济学和工商管理 2 个硕士学位一级学科授权点，以及工商管理硕士（MBA）、金融硕士（MF）、会计硕士（MPAcc）3 个硕士专业学位授权点；有国际经济与贸易、会计学两个国家一流专业建设点，人力资源管理、金融工程 2 个省级一流专业建设点；有河北省小额贷款研究咨询中心、河北师范大学经济研究中心、河北师范大学现代管理研究中心、河北师范大学经济统计研究中心、河北师范大学金融数据分析中心、河北师范大学数字经济研究中心等 6 个研究中心；有河北省实验教学示范中心 1 个，包括金融、贸易、ERP 综合实训等 8 个经济管理类实验室；有“河北省管理教育创新高地”“河北省品牌特色专业”和“河北省综合改革试点专业”各 1 个；“河北省级一流本科专科”3 个；是“全国现代管理领域专业技术人才知识更新工程”河北省教学基地。南京大学中国智库研究与评价中心 CTTI 来源智库、河北省“现代服务与公共政策”软科学研究基地设在商学院。

学院现有教职工 71 人，其中专任教师 59 人；教授 9 人，副教授 28 人；硕士研究生导师 34 人；在读和具有博士学位的 32 人，具有海外学习背景的 21 人；教师队伍以年轻教师为主，40 岁以下教师占教师总数的 40%左右，教师队伍年龄结构、学缘结构、职称结构较为合理。同时，学院外聘企业家兼职教授 60 余人，有效改善了商学院教学科研人员的师资构成。此外，还与美国北爱荷华大学经济学院、韩国又松大学 SolBridge 商学院等国外院校建立了友好合作关系，定期开展师资与学术交流，提高了现有师资的国际化水平。

学院坚持以大开放、大交流、大合作促进大发展的改革和发展思路，全面深化教育教学改革，加强专业内涵建设，在开放化、国际化、市场化、特色化办学方面进行了积极的探索:通过与企业全面对接深化教学改革，通过国际化办学拓展学生成长空间，坚持以“经典研读+技能训练”提升学生专业能力，努力以创新创业教育培育商界精英，逐步形成了特色鲜明的人才培养模式。中国教育报（头

版头条加编者按）等国内诸多媒体都曾对学院的人才模式进行介绍宣传。

学院是河北师范大学确定的开展国际化办学的试点学院。目前，在硕士培养层次上，与美国加州大学河滨分校商学院开展了 3+1+1 本硕连读项目，与法国雷恩商学院开展了 3.5+1.5 或 4+1.5 本硕连读项目，与韩国又松大学开展了 0.5+1.5 联合培养 MBA 项目，与日本东北大学达成了 1+1+1 或 2+1 双硕士联合办学协议。

近 5 年来，商学院教师立足河北省实际，充分发挥高校教师作为政府和企业等相关单位智库的作用，在诸多领域展开深入研究为河北经济社会强省的建设服务。在科研项目方面，获得国家基金 6 项、教育部课题 5 项、河北省社科基金省、河北省自然科学基金、河北省软科学项目等 41 项；发表高水平学术论文 100 余篇，出版学术著作 29 部；获河北省社会科学优秀成果奖 6 项；提交各部门研究咨询报告 60 余项。