

The 4th CeDEx China Workshop on Behavioural and Experimental Economics

University of Nottingham Ningbo China, 24. - 25. May.

Organizers:

Centre for Decisions Research and Experimental Economics (CeDEx China)
School of Economics, University of Nottingham Ningbo China

Schedule

SATURDAY. Location: New International Conference Centre (NICC)

09:15 - 09:30	Introduction and Welcome. Catriona Morrison , Dean of the Faculty of Humanities and Social Sciences, UNNC
09:30 - 10:30	Keynote Lecture: Syngjoo Choi , Seoul National University <i>Complexity and Human Choice.</i> Chair: Catriona Morrison
10:30 - 11:00	Coffee Break
11:00 - 11:30	Jaimie Lien , Shandong University <i>Declare or Commit? Pre-Announcing Contributions to a Public Good</i>
11:30 - 12:00	Marcus Roel , UNNC <i>The Effect of Perceived Labor Market Competition on Job Search. Results from a Follow-Up Survey</i>
12:00 - 12:30	Jie Zheng , Shandong University <i>Sequential Investment Mechanism and Gradual Trust: An Experimental Study</i>
12:30 - 14:00	Lunch in the Staff Canteen, on campus
14:00 - 14:30	Jiadong Gu , Zhejiang University <i>Selling Information to an Informed Firm</i>
14:30 - 15:00	Jianxun Lyu , University of Electronic Science and Technology of China <i>Evolutionary Information Design</i>
15:00 - 15:30	Ye Jin , NYU Shanghai <i>Observability of Disclosure Rule: an Experimental Analysis</i>
15:30 - 16:00	Coffee Break
16:00 - 16:30	Weicheng Min , Shanghai Jiaotong University <i>Information Acquisition with Uncertain Signal Structure</i>
16:30 - 17:00	Shuguang Zhu , Shanghai University of Finance and Economics <i>Optimal Design of Market Access</i>
17:00 - 17:30	Tom Lane , Newcastle University <i>No Silver Lining: Consumer Indifference Between Human and AI Production</i>
17:30 - 17:40	A Special Message from Chris Starmer , Director of CeDEx, UNUK
18:00 - 20:00	Dinner

SUNDAY. Location: New International Conference Centre (NICC)

09:15 - 09:45	Haibo Xu , UNNC <i>Information Asymmetry at Debt Rollover and Startup Loans</i>
09:45 - 10:15	Zhixian Yu , UNNC <i>Partially Re-negotiable Bargaining: A Combination of Shapley and Nucleolus Value</i>
10:15 - 10:45	Yongchao Zhang , Shanghai University of Finance and Economics <i>On Competitive Equilibria in Housing Markets with One Broker</i>
10:45 - 11:15	Coffee Break
11:15 - 12:15	Keynote Lecture: Silvia Sonderegger , UNUK <i>Learning from Others? Rigidity, Open-mindedness and the Role of Coordination</i> Chair: Sarah Cook, Head of School of Economics, UNNC
12:15 - 13:45	Lunch in the Staff Canteen, on campus
13:45 - 14:15	Zhuoran Du , University of New South Wales <i>Identity as Non-monetary Incentives, Two-stage Delegation and Capital Neutrality</i>
14:15 - 14:45	Xueheng Li , Lingnan Colledge, Sun Yat-sen University <i>Influencer Networks</i>
14:45 - 15:15	Yanlin Chen , Nanjing Audit University <i>Signaling in Auctions with Return policies</i>
15:15 - 15:45	Coffee Break
15:45 - 16:15	Yadi Yang , Nanjing Audit University <i>When to feed the Leviathan: Tradeoffs between efficiency, fairness, and the intrinsic value of decision rights</i>
16:15 - 16:45	Jin Di Zheng , Huazhong University of Science and Technology <i>The Welfare Effect of Rank Information Provision at Workplace: An Experimental Study</i>

Abstracts

Haibo Xu, UNNC

Information Asymmetry at Debt Rollover and Startup Loans

Abstract: To shed light on information regulation in credit markets, this paper studies how information asymmetry at firm debt rollover affects firm initial borrowing capacity. In our model, investors in startup loan market account for effects of future public signals (whose structure determines information asymmetry) on debt rollover outcomes. We show that compared with a full-revealing signal structure, some coarser signal structures enhance firm borrowing capacity. A pass-or-fail signal structure optimally balances startup loan issuer's liquidity risk and information rent dissipation, maximizing firm borrowing capacity. The pass-or-fail signal structure whose associated borrowing capacity equal to borrowing need maximizes social welfare.

Jaimie Lien, Shandong University

Declare or Commit? Pre-Announcing Contributions to a Public Good

Abstract: We introduce a voluntary commitment mechanism for public goods provision which is highly effective in the laboratory, and can be considered for implementation in problems such as climate agreements. We study a 2x2 design of treatments varying by whether players have to commit to or merely declare their contributions (declare vs. commit), and whether the declaration/commitment is at the individual or group level (individual vs. group). We find that declarations alone are ineffective, and that there is no relationship between individuals' declarations and contributions, resulting in poor outcomes. In the Individual Commitment treatment, while subjects adhere to their commitments, the overall commitment level is low. In all of these treatments, payoffs are decreasing in contributions made, and a substantial static norm of zero contributions develops. Only the Group Commitment treatment succeeds in achieving an increasing pattern of commitment and contributions, and converges rapidly to a predominant norm of full contributions.

Jiadong Gu, Zhejiang University

Selling Information to an Informed Firm

Abstract: This paper studies the design and price of information (Bergemann et al., 2018) with continuous types of a data buyer, under the regularity of the utility function. The characterization offers a necessary condition about the marginal data buyer for the binary experiments to be optimal. When this condition does not hold, we provide an explicit construction of the optimal menu of experiments. We then apply it to the data buyer's pricing problem in the product market. It is shown that the data fee is piecewise linear in the data buyer's types with the data being used for pricing.

Jianxun Lyu, University of Electronic Science and Technology of China

Evolutionary Information Design

Abstract: This paper introduces evolutionary information design for behavioral interventions in large populations. An information designer can regulate evolutionary game dynamics to converge to a selected equilibrium by strategically revealing unbiased signals to agents. We first prove the existence of sampling equilibrium in finite population games with noisy information. Then, we establish a set of feasibility results on equilibrium selection via evolutionary information design. In particular, evolutionary information design is omnipotent as any strict Nash equilibrium can be selected from any interior initial population state. For boundary initial states, equilibrium selection relates to a set-valued solution concept known as the CURB set. We provide a stepwise approach to constructing an unbiased information structure that ensures feasible equilibrium selection. Additionally, we establish a revelation principle for evolutionary information design that transforms a general information structure into an equivalent direct action recommendation mechanism.

Jie Zheng, Shandong University

Sequential Investment Mechanism and Gradual Trust: An Experimental Study

Abstract: This study investigates the dynamics of sequential investment mechanisms and the development

of trust in multi-stage interactions using an investment game experiment. By comparing pre-committed and discretionary mechanisms, the study uncovers distinct behavioral patterns and efficiency outcomes. Pre-committed mechanisms promote steady trust development, balanced fund allocation, and high efficiency in two-stage investments, making them suitable for stable and well-defined projects. In contrast, discretionary mechanisms emphasize flexibility and adaptability, achieving higher efficiency in three-stage investments but exhibiting lower efficiency in two-stage investments compared to pre-committed mechanisms. Trustors in pre-committed settings allocate funds evenly across stages, while those in discretionary settings follow progressive strategies, reserving larger portions for later stages. These allocation behaviors likely arise from a heuristic approach, where trustors simplify their expectations of trustees' actions. The findings highlight the trade-offs between commitment and flexibility in trust-based systems, offering practical insights for designing institutions that balance these elements to foster trust, enhance social efficiency, and address diverse applications.

Jin Di Zheng, Huazhong University of Science and Technology

The Welfare Effect of Rank Information Provision at Workplace: An Experimental Study

Abstract: Rank-order tournaments are effective incentives for performance in schools and organisations. Big data technologies make peer comparisons more accessible with a simple click on electronic devices. What is the value of rank information for agents in competitive environments? We study the effects of rank information with a real effort task on productivity in the laboratory. With a between-subject design, we compare 1) performance rank information on individual and group-level productivity, 2) two types rank information – own-comparison (with one's historical record) and other-comparison (with her competitors), 3) their willingness to pay (WTP) for rank information in own-comparison and other-comparison scenarios. Our results show that compared with other-comparison treatment, participants are willing to pay more to get information on own performance; and this trend does not diminish quickly with time. However, when they are given the opportunity to purchase information on rank information, they exert less effort receiving other-comparison information and the least effort receiving own-comparison, compared to no information treatment. The same pattern occurs when participants receive complimentary information. Organizations should carefully consider the design and delivery of rank-based feedback systems to optimize effort and performance.

Marcus Roel, UNNC

The Effect of Perceived Labor Market Competition on Job Search. Results from a Follow-Up Survey

Abstract: This talk will present initial results of a follow-up survey for our paper "How Many Others Apply for the Jobs I Am Applying for? The Effect of Perceived Labor Market Competition on Job Search", which explored the causal impact of beliefs about labor market competition (measured by applications per vacancy in the job seeker's preferred occupation) and goal setting on job seekers' job search behavior on a large Chinese online job board. In the follow-up survey, we explore how job seekers' beliefs about generic labor market competition that we had elicited in our original field experiment relate to various other beliefs of labor market competition as well as various beliefs related to job search. This is done via hypothetical scenarios via a survey experiment on a large Chinese online survey platform.

Shuguang Zhu, Shanghai University of Finance and Economics

Optimal Design of Market Access

Abstract: We study a data provider's problem of optimally designing and selling marketing lists that enable a retailer with private types to access consumers with heterogeneous characteristics. When virtual values satisfy a particular form of convexity (named boundary dominance), under certain regularity conditions, the optimal mechanism comprises fully-revealing marketing lists, irrespective of whether the retailer's types are vertically or horizontally ordered. Moreover, in the vertical case, the optimal mechanism allows a simple "fixed-price" implementation. In the horizontal case, it exhibits no-exclusion and rotation properties. Conversely, if boundary dominance is violated, the optimal mechanism may not be fully-revealing.

Tom Lane, Newcastle University

No Silver Lining: Consumer Indifference Between Human and AI Production

Abstract: Artificial intelligence can now produce outputs that were once the preserve of human labour. Yet well-documented algorithm aversion raises the possibility of consumer bias in favour of human-produced work. This paper uses incentivised experimental auctions and a state-of-the-art generative AI algorithm to compare consumer valuations for human-versus AI-created artworks. We find no intrinsic favouritism towards human-created work in consumer valuations, suggesting that prospects for workers in AI-substitutable roles are bleak. However, demand for AI-created products varies with individuals' attitudes toward AI, indicating that economies with more prevalent anti-AI sentiment may better sustain human labour.

Weicheng Min, Shanghai Jiaotong University

Information Acquisition with Uncertain Signal Structure

Abstract: A myopic agent repeatedly chooses between two information sources to learn a persistent fundamental. She knows the signal structure of the familiar source but is uncertain about the signal structure of the unfamiliar source. In this two-dimensional learning problem, the two dimensions become naturally correlated over time. This paper makes a novel observation that it is the correlation, instead of the marginal belief over the uncertain signal structure, that determines the expected informativeness of the unfamiliar source. Based on this observation, this paper characterizes the agent's asymptotic choice of source. Under appropriate conditions, the agent settles on the familiar source with probability one for any prior, even if the true signal structure of the unfamiliar source Blackwell dominates that of the familiar source. As an implication, this result explains the well-documented preference towards familiarity from a rational perspective.

Xueheng Li, Lingnan College, Sun Yat-sen University

Influencer Networks

Abstract: This paper develops a model to examine the formation of influencer networks in user-generated content markets. Unlike previous research, we find that every strict equilibrium network exhibits a nested, upward-linking structure where multiple levels of influencers can coexist. Moreover, across a broad range of parameters, all payoff-dominant strict equilibria conform to the law of the vital few: regardless of the population size, a small but significant group of players provides all content. For sufficiently large populations, a single nested upward-linking network connecting all players can emerge, despite potentially polarized tastes over content categories.

Yadi Yang, Nanjing Audit University

When to feed the Leviathan: Tradeoffs between efficiency, fairness, and the intrinsic value of decision rights

Abstract: An essential component of effective institutional design and governance is understanding the driving factors behind the delegation of decision-making to external intervention systems and the intricate relationships between these factors. In a threshold public goods game, we investigate how people choose between voluntary contribution and a centralized institution that enforces cooperation. Specifically, our study focuses on how individuals trade off among the efficiency of public goods provision, fairness in contribution levels, and the intrinsic value of autonomy. In a laboratory experiment, we find (1) individual heterogeneity in their willingness to prioritize fairness over efficiency, (2) limited evidence for a constant intrinsic value of autonomy, and (3) systematic deviations from the predictions of classic social preference models which typically incorporate self-interest, preferences for fairness, and social welfare concerns. These results hint at the presence of potential behavioral factors associated with the perceived rightfulness of centralized institutions. Our findings suggest the elastic nature of the demand for delegation and could have implications for better designs of human intervention and AI governance aimed at fostering collective action.

Yanlin Chen, Nanjing Audit University

Signaling in Auctions with Return policies

Abstract: In this paper, we analyze return policies in second-price auctions for objects with binary qualities. We fully characterize the equilibria in pure strategy. In separating equilibria, the high-type seller needs to

provide a generous enough return policy, more so with less bidders. However, a better return policy may not correspond to a better quality. All separating equilibria lead to the outcome under full information. In pooling equilibria, the return policy cannot be too generous, more so with more bidders. In particular, pooling at full refund cannot be an equilibrium. When the Grossman–Perry–Farrell refinement is imposed, only separating equilibria survive. We also extend the results to multiple qualities.

Ye Jin, NYU Shanghai

Observability of Disclosure Rule: an Experimental Analysis

Abstract: In information design theory, senders are assumed to commit to a disclosure rule. However, it's debatable whether the receiver can fully observe this rule in reality. We describe the sender's partial commitment as being limited to the part of the disclosure rule observable by the receiver. We conduct an experimental study on a realistic scenario of partial commitment, where only the distribution of realized signals can be observed, not the full commitment. The persuasiveness of a sender with partial commitment closely resembled that of Bayesian Persuasion when the sender has state-independent preferences or an alignment of interests between the parties. However, the sender's persuasiveness diminished when interests were misaligned.

Yongchao Zhang, Shanghai University of Finance and Economics

On Competitive Equilibria in Housing Markets with One Broker

Abstract: The model of housing market (Shapley and Scarf, 1974) is a classic model in market design, and there exists a unique competitive equilibrium allocation, which is the outcome of the top trading cycles mechanism. We in this paper study an extended housing market model by adding one broker to the original model, here the broker can only trade her brokered house with others, but she cannot take it and leave the market (Pycia and Unver, 2017). We propose a notion of competitive equilibrium in this extended model, and show that there exists a unique competitive equilibrium allocation; moreover, this allocation is the outcome of trading cycles mechanism in Pycia and Unver (2017).

Zhixian Yu, UNNC

Partially Re-negotiable Bargaining: A Combination of Shapley and Nucleolus Value

Abstract: This paper introduces a dynamic multilateral bargaining model in which a principal negotiator interacts with two subsidiary agents under resource constraints, incorporating exit mechanisms for both negotiation success and failure. Key findings show that equilibrium outcomes coincide with the Shapley value when agreements remain provisional ($p = 0, q = 1$) and the Nucleolus value when agreements are binding ($p = 1, q = 0$). Otherwise, agents face a "first-mover disadvantage." The principal's payoff inversely correlates with p or q , contingent on the agents' combined standalone value ($a + b$). These results offer strategic insights for negotiation design under partial renegotiability and substitutable partnerships.

Zhuoran Du, University of New South Wales

Identity as Non-monetary Incentives, Two-stage Delegation and Capital Neutrality





Abstract: This paper develops an integrated framework that unites two pivotal themes in contemporary contract theory: the role of social identity as a non-monetary incentive (NMI) in principal-agent models and the dynamics of two-stage delegation coupled with capital neutrality. Traditional contract design has long relied on monetary incentives to align the interests of principals and agents. However, emerging evidence from behavioral experiments indicates that agents' social identities encompassing intrinsic motivations will play a crucial role in determining labor supply and performance. By embedding identity into the utility function of agents, our model captures how non-monetary benefits can substitute conventional monetary rewards, thereby influencing decision-making in complex organizational settings.

Accommodation, Transportation, and Visitor Guide


1. Visitor Pass

Please apply the visitor pass via: <https://visitor.nottingham.edu.cn/> -> Visitor -> Log in with your mobile phone number -> agree with the terms and conditions -> fill the visit information as below:

● Visit Information

 Gate of access *	UNNC GATE-1	
 Visit Date *	2024-06-07	- 2024-06-09
 Purpose *	Meeting	
 Drive	<input type="checkbox"/>	

● Host ⓘ

 History Host List		
Fill in email *	Claudia.Cai	@nottingham.edu.cn

2. Hotel Information (on UNNC campus)

We have already reserved rooms at LA Hotel of University of Nottingham Ningbo China for all participants who confirmed with us, **please register with your national ID card or passport.**

3. Transportation

3.1 Plane

From Ningbo Lishe Airport

A taxi from the airport costs around 30 RMB for a 12km journey.

From Hangzhou Xiaoshan Airport

Take the shuttle bus from the airport to Hangzhou Train Station then get the high-speed train to Ningbo Train Station.

From Shanghai Hongqiao Airport

Transfer by foot to Hongqiao Train Station then get the high-speed train to Ningbo Train Station.

From Shanghai Pudong Airport

Take a taxi or the Metro to Hongqiao Train Station, then take the high-speed train to Ningbo. A taxi to Hongqiao Train Station will take about one hour and costs around 250 RMB. To get to Hongqiao Train Station via Metro, take Line 2 and transfer at Guanglan Lu station.

3.2 Train (CHSR)

From Ningbo Railway Station

A taxi from the railway station costs around 30-40 RMB for a 10km journey.

Note: you can take Didi ONLY at North Square; and take taxi at both North and South Square.

3.3 Taxi

Show taxi drivers the following address to reach the University campus:

宁波市鄞州区高教园区泰康东路 199 号，宁波诺丁汉大学 1 号门

The University of Nottingham Ningbo China, Gate 1, 199 Taikang East Road, Ningbo



4. Wi-Fi access

Wi-Fi This is a quick configuration guide for connecting to the UNNC wireless network (SID: UoN-welcome).

1. Choose the WIFI SID: UoN-welcome on your mobile phone.
2. Click the Create Account for your first register.
3. Edit your detailed information to register.
4. Check and click the item: I accept the terms of use and click Register.
5. Click the Log in.
6. Click the activate in the mail from pass@nottingham.edu.cn

Note:

- a. After you activated, your account will be enabled. And its Expiration Time is 7 days later.
- b. Eduroam is available for those whose institutions subscribe to the global service.

