4TH ANNUAL CONFERENCE

CONTESTS: THEORY AND EVIDENCE

25 - 26 JUNE 2018

Welcome to this fourth edition of Contests: Theory and Evidence. This workshop series brings together researchers interested in contests, broadly defined, from theoretical, applied, and experimental perspectives. In addition to contributions to game theory, previous editions of this workshop have featured applications to voting, political economy, research and development, sports, and attitudes towards interpersonal and integroup comparisons. The series has brought together leading researchers from over 50 different institutions around the world here in Norwich. As the organisers we are pleased to have another excellent line-up of talks over the two days of the workshop, and look forward to discussions during the breaks and dinners as stimulating as in the first three years.

Contests: Theory and Evidence is generously supported by the School of Economics and the Centre for Behavioural and Experimental Social Science.

MONDAY 25 JUNE	4
TUESDAY 26 JUNE	6
ABSTRACTS	8
USEFUL INFORMATION	20
GETTING TO UEA	21
CAMPUS MAP	22

MONDAY 25 JUNE	
09:00 - 09:20	Registration
09:20 - 09:30	Inauguration
09:30 - 11:30	Parallel Sessions: 1 and 2
11:30 - 12:00	Coffee Break
12:00 - 13:00	Keynote Speech
13:00 - 14:00	Lunch
14:00 - 15:30	Parallel Sessions: 3 and 4
15:30 - 16:00	Coffee Break
16:00 - 17:30	Parallel Sessions: 5 and 6
19:00 - 20:30	Dinner
TUESDAY 26 JUNE	
09:00 - 11:00	Parallel Sessions: 7 and 8
11:00 - 11:30	Coffee Break
11:30 - 13:00	Parallel Sessions: 9 and 10
13:00 - 14:00	Lunch
14:00 - 16:00	Parallel Sessions: 11 and 12
18:00 - 20:30	Dinner

MONDAY 25 JUNE

09:00 - 09:30	
REGISTRATION & INAUGURATION	
09:30 - 11:30	
SESSION 1 - ARTS 2.01 **THEORY EXTENSIONS** **Chair:** Scott Gilpatric (Tennessee)	**SESSION 2 - ARTS 2.03** **GROUP CONTESTS** **Chair:** Stefano Barbieri (Tulane)
Dave Rietzke (Lancaster): Robust Comparative Statics in Contests	**Wing Fung Cheng** (Hong Kong): Poisoned Chalice - Optimal Bias in Two-Stage Collective Contest
Tamay Besiroglu (Warwick): Aggregate Effort in Contests	**Romain Fayat** (Cee-M): Group Size - Collective Action and Complementarities in Efforts
Samuli Leppälä (Cardiff): The Tullock paradox and imperfect competition	**Iryna Topolyan** (Cincinnati): Private Information Group Contests with Complementarities
Scott Gilpatric (Tennessee): Optimal Contest Design when Policing Misconduct	**Stefano Barbieri** (Tulane): Group Contests with Private Information and the "Weakest Link"
11:30 - 12:00	
COFFEE BREAK - ARTS 2.06	
12:00 - 13:00	
KEYNOTE PRESENTATION - ARTS 2.01 **MY CONTRIBUTIONS TO THE THEORY OF CONTESTS** **Kyung Hwan Baik** (Sungkyunhwan University, Seoul) **Chair:** Dan Kovenock (Chapman University)	
13:00 - 14:00	
LUNCH - ARTS 2.06	

MONDAY 25 JUNE

14:00 - 15:30	
SESSION 3 - ARTS 2.01 **REPEATED PLAY** **Chair:** Lionel Page (Queensland)	**SESSION 4 - ARTS 2.03** **TOURNAMENTS** **Chair:** Hendrik Sonnabend (FernUniversität Hagen)
Jörg Franke (Bath): Repeated Contest with Draws	**Mikhail Drugov** (New Economic School): Tournament Rewards and Heavy Tails
Lorenzo Cerboni Baiardi (Milano-Bicocca): Imitative and best response behaviors in a repeated Tullock contest	**Thomas Giebe** (Linnaeus): Tournaments with fatigue and recovery: The effect of a short-term increase in incentives
Lionel Page (Queensland University of Technology): How Success Breeds Success	**Hendrik Sonnabend** (FernUniversität Hagen): Strategic Behavior in Dynamic Tournaments with Heterogeneous Players
15:30 - 16:00	
COFFEE BREAK - ARTS 2.06	
16:00 - 17:30	
SESSION 5 - ARTS 2.01 **UNCERTAINTY IN CONTESTS** **Chair:** Lambert Schoonbeek (Groningen)	**SESSION 6 - ARTS 2.03** **EXPERIMENTS (MISCELLANEOUS)** **Chair:** Theodore Turocy (UEA)
Michael Kramm (TU Dortmund): Information Design in Multi-Task Contests - Whom to Inform When the Importance of Tasks Is Uncertain	**Josie Chen** (Taipei): How to Motivate Students to Reduce Dormitory Electricity Use: A Field Experiment
Feng Zhu (PennState): Creative Contests	**Jordan Adamson** (Chapman): The Supply Side Determinants of Territory and Conflict
Lambert Schoonbeek (Groningen): A rent-seeking contest with uncertain discriminatory power	**Theodore Turocy** (UEA): Leadership in head-to-head contests with complex strategy spaces
19:00	
Dinner at **Ali Tandoori**, 9-11 Magdalen St, Norwich NR3 1LE	

TUESDAY 26 JUNE

09:00 - 11:00	
SESSION 7 - ARTS 2.01 **DISCLOSURE POLICY IN CONTESTS** **Chair:** Christian Ewerhart (Zurich)	**SESSION 8 - ARTS 2.03** **BARGAINING AND LITIGATION** **Chair:** Tapas Kundu (Oslo)
Philip Brookins (MPI, Bonn): An experimental study of information disclosure in contests with endogenous entry	**Erya Yang** (UCal, Irvine): Optimism and Pessimism in Bargaining and Contests
Qiang Fu (NUS): Feedback and Favoritism in Sequential Elimination Contests	**Anil Yildizparlak** (Durham): The use of conflict as a bargaining tool
Toomas Hinnosaar (Collegio Carlo Alberto): Contest architecture by public disclosures	**Zach Schaller** (UCal, Irvine): Contests and Bargaining with Upfront Investment
Christian Ewerhart (Zurich): Voluntary Disclosure in Unfair Contests	**Tapas Kundu** (Oslo): The Presumption of Validity in Patent Litigation
11:00 - 11:30	
COFFEE BREAK - ARTS 2.06	
11:30 - 13:00	
SESSION 9 - ARTS 2.01 **EXPERIMENTS (THEORY TESTING)** **Chair:** Jingfeng Lu (NUS)	**SESSION 10 - ARTS 2.03** **MEMBERSHIP CHOICE** **Chair:** Dongryul Lee (Sungshin)
Dave Bruner (Appalachian): Voluntary Provision of Property Rights Under Inequity	**Friederike Blönnigen** (TU Dortmund): Club Good Provision and Nested Contests
Lorenzo Spadoni (Tuscany): The Effect of Competition on Risk Taking - An Experimental Study	**Henrik Zaunbrecher** (Maastricht): Conflict and Migration: Mobility in Group Contests
Jingfeng Lu (NUS): Enhancing Effort Supply with Prize-Augmenting Entry Fees: Theory and Experiments	**Dongryul Lee** (Sungshin): The Formation of Groups and Competition

TUESDAY 26 JUNE

13:00 - 14:00	
LUNCH - ARTS 2.06	
14:00 - 16:00	
SESSION 11 - ARTS 2.01 **BIASED CONTESTS** **Chair:** Tore Nilssen (Oslo)	**SESSION 12 - ARTS 2.03** **PARALLEL BATTLEFIELDS** **Chair:** Dan Kovenock (Chapman)
Subhasish M Chowdhury (Bath): Affirmative Action Policies and Sabotage Behavior in Promotional Tournaments: An Experiment	**Paul M Gorny** (UEA): Generalising Conflict Networks
Marco Serena (MPI, Munich): On the suboptimality of perfectly levelling the playing field in dynamic contests	**Daniel Stephenson** (Chapman): Multi-Battle Rent Seeking Contests over Complementary Battlefields
Zenan Wu (Peking): On the Optimal Design of Lottery Contests	**Sebastian Cortes-Corrales** (Leicester): Testing Networks of Conflict
Tore Nilssen (Oslo): Beating the Matthew Effect: Head Starts and Catching Up in a Dynamic All-Pay Auction	**Dan Kovenock** (Chapman): Segmented Equilibria in the N-Player Colonel Blotto Game
18:00	
Dinner at **The Georgian Townhouse**, 30-34 Unthank Rd, Norwich NR2 2RB.	

SESSION 1 - ARTS 2.01

THEORY EXTENSIONS

Chair: Scott Gilpatric (Tennessee)

Presentation 1: Robust Comparative Statics in Contests

Dave Rietzke (Lancaster University)

In this paper- we invoke tools from lattice theory to derive several comparative statics in a contest under minimal restrictions on the primitives. Some of our findings extend existing results- while others clarify the relevance of structure commonly imposed in the literature. We also comment on equilibrium existence and uniqueness.

Presentation 2: Aggregate Effort in Contests

Tamay Besiroglu (University of Warwick)

Extending an existing model of Logit-contests due to Gama and Rietzke (2017)- we provide a comprehensive framework for analysing aggregate effort in contests with asymmetric players with different valuations and cost functions and arbitrary impact functions. Fair Logit contests are found to be supermodular games for Nash-winners and submodular for Nash-losers due to the dependency of the curvature of success functions on opponents' effort.

Presentation 3: The Tullock paradox and imperfect competition for rents

Samuli Leppälä (Cardiff University)

I study a contest for partially exclusive rents with a stochastic number of winners. Partial exclusivity can explain the Tullock paradox- since it decreases rent dissipation- but it also increases equilibrium effort. An effort-maximising organiser has a simple rule to follow by awarding at most half of the potential rents.

Presentation 4: Optimal Contest Design when Policing Misconduct

Scott Gilpatric (University of Tennessee)

We assume enforcement actions can measure contestants' misconduct behavior- but with error. The contest organizer sets a limit on the tolerated misconduct level as a part of the optimal contest design. We model previously unstudied trade-offs between elicited effort- enforcement costs- and damaging misconduct in equilibrium.

SESSION 2 - ARTS 2.03

GROUP CONTESTS

Chair: Stefano Barbieri (Tulane)

Presentation 1: Poisoned Chalice - Optimal Bias in Two-Stage Collective Contest

Wing Fung Cheng (The Hong Kong University of Science and Technology)

We consider a two-stage contest in which the second stage contest favors or handicaps the individual winner of the first stage contest. We find that a favorable bias may be a poisoned chalice. The optimal bias may be favoring or handicapping the early winner. Our study provides a new channel to explain the variation of bias in different contests.

Presentation 2: Group Size- Collective Action and Complementarities in Efforts

Romain Fayat (Cee-M)

We model a contest game between two groups of different sizes competing for a prize exhibiting a varying degree of rivalry and where group effort is given by a CES function. - We show that with a sufficiently high degree of complementarity the larger group can be more succesfull than the smaller one.

Presentation 3: Private Information Group Contests with Complementarities

Iryna Topolyan (University of Cincinnati)

We model competing groups when players' values for winning are private information, individual eorts within a group can be more or less complementary, and the group with the best performance wins the contest. We analyze the eects of increasing the number of competing teams, team members, and complementarity of efforts.

Presentation 4: Group Contests with Private Information and the "Weakest Link

Stefano Barbieri (Tulane University)

We study group competition with weakest-link technology and private information. Various degrees of coordination are possible in equilibrium- but more coordination need not be welfare-enhancing. When information sharing among teammates is possible- a single group sharing information does better. But if all groups share information- all gains are lost to increased competition.

SESSION 3 - ARTS 2.01

REPEATED PLAY

Chair: Lionel Page (Queensland)

Presentation 1: Repeated Contest with Draws

Jörg Franke (University of Bath)

We consider a simple contest game with draws where sometimes none of the contestants is selected as winner. If such a draw occurs- then the contest is repeated in the next period unless either one of the contestants wins the prize- or until a final last period is reached. This structure of repeated contests with draws introduces a dynamic element into the model. We are interested in the strategic implications of these dynamics with respect to intertemporal effort decisions by the contestants as well as total rent dissipation.

Presentation 2: Imitative and best response behaviors in a repeated Tullock contest

Lorenzo Cerboni Baiardi (University Milano-Bicocca)

We consider a model of repeated Tullock contest where boundedly rational - players set their efforts following- alternatively- proportional imitation and rational-like - rules. We aim at deepening the dynamic consequences of the presence of heterogeneous behaviors - in a nonlinear environment and we discuss them at the light of experimental outcomes.

Presentation 3: How Success Breeds Success

Lionel Page (Queensland University of Technology)

We study whether and how success increases the chance of subsequent success using a real-effort laboratory experiment. We identify the causal effect of winning in a simple dynamic (best-of-three) contest using the random component of a stochastic contest success function that determines the winner of each round. We find a positive effect of an initial success on subsequent performance. We then disentangle the two competing explanations of the positive effect: strategic thinking and psychological effect of winning. To do so- we replace either the first round or the last round of the contest with a die selecting the winner at random- therefore turning on and off each explanation.

SESSION 4 - ARTS 2.03

TOURNAMENTS

Chair: Hendrik Sonnabend (FernUniversität Hagen)

Presentation 1: Tournament Rewards and Heavy Tails

Mikhail Drugov (New Economic School)

This paper shows that the optimal allocation of prizes of multi-prize rank-order tournaments is determined by the failure rate of the noise distribution. The winner-take-all (elimination) tournament is optimal when it is increasing (decreasing). Further results for unimodal failure rates are provided.

Presentation 2: Tournaments with fatigue and recovery: The effect of a short-term increase in incentives

Thomas Giebe (Linnaeus University - Sweden)

We extend the Lazear-Rosen rank-order tournament model to a dynamic setting with fatigue and recovery. We provide theoretical predictions for effort allocation over time. The model predicts strategic resting before an increase in incentives- and slacking after incentives are reduced. We test the predictions in a laboratory experiment.

Presentation 3: Strategic Behavior in Dynamic Tournaments with Heterogeneous Players

Hendrik Sonnabend (FernUniversität Hagen)

This study contributes to the understanding of forward-looking behavior and the strategic allocation of resources in rank-order tournaments. Our theoretical analysis indicates that players conserve resources in a current contest to spend more in the next given the degree of heterogeneity is sufficiently large in the current contest. We test this hypothesis with data from German professional football. Consistent with the model- results suggest that teams strategically use one-game suspensions depending on the current and future opponents' relative strengths.

SESSION 5 - ARTS 2.01

UNCERTAINTY IN CONTESTS

Chair: Lambert Schoonbeek (Groningen)

Presentation 1: Information Design in Multi-Task Contests - - Whom to Inform When the Importance of Tasks Is Uncertain

Michael Kramm (Technical University of Dortmund)

In multi-task contests it is often unclear to contestants how success depends on the mixture of effort investments in different tasks. We show that- if the contest designer can transmit information on this mixture- she cannot benefit by using public messages. However- asymmetrically disclosing information (e.g. “informational favoritism”) increases efforts.

Presentation 2: Creative Contests

Feng Zhu (Pennsylvania State University)

This paper introduces “creative contests”- in which the criterion for ranking contestants is not fully specified in advance. Examples include architectural contests and logo design contests. Both pure strategy and mixed strategy equilibria can emerge- and are characterized by solutions to a system of non-linear and differential equations.

Presentation 3: A rent-seeking contest with uncertain discriminatory power

Lambert Schoonbeek (University of Groningen)

We investigate the equilibria of a two-player Tullock contest with uncertain discriminatory power in the contest success function. We examine the cases where both players are either informed or uninformed about the size of the discriminatory power parameter- as well as the case where only one player has private information about it.

SESSION 6 - ARTS 2.03

EXPERIMENTS (MISCELLANEOUS)

Chair: Theodore Turocy (UEA)

Presentation 1: How to Motivate Students to Reduce Dormitory Electricity Use: A Field Experiment

Josie Chen (National Taipei University)

This study investigates whether students reduce electricity usage more when they are in a contest and whether providing feedback to students on their own intergroup or intragroup ranking is an effective tool. To answer these questions- we ran a field experiment in college dormitory rooms

Presentation 2: The Supply Side Determinants of Territory and Conflict

Jordan Adamson (Chapman University)

We microfound Boulding’s “Loss of Strength Gradient” to predict the extensive and intensive margins of conflict at multiple locations. The geographic distribution of peace and war depends on scale-economies in the production of violence and costs of projecting power at a distance. Our experimental results match the theory.

Presentation 3: Leadership in head-to-head contests with complex strategy spaces

Theodore Turocy (University of East Anglia)

We study experimentally the role of leadership in competitive head-to-head contests between two teams facing a complex strategy space. Teams of three members face an instance of a team orienteering problem, in which the members jointly devise then separately implement a plan to visit a set of locations on a map. Some teams have one member designated as a ``leader,” although this role does not confer any distinct responsibility or capability in the game. We compare the performance of teams with elected leaders, appointed leaders, and no leaders. We find that teams with elected leaders perform significantly better in their initial game, but the effect disappears entirely in a team’s second and subsequent games. The results suggest that nominating a leader in an environment with an otherwise flat team structure does not have a significant effect on team performance in competitive settings.

SESSION 7 - ARTS 2.01

DISCLOSURE POLICY IN CONTESTS

Chair: Christian Ewerhart (Zurich)

Presentation 1: An experimental study of information disclosure in contests with endogenous entry

Philip Brookins (Max Planck Institute for Research on Collective Goods)

We experimentally explore behavior in contests with endogenous entry by varying the disclosure rule - whether the number of entrants is disclosed - and the size of the outside option ? - high or low. As predicted- entry is invariant to disclosure; however- investments increase in disclosure for high?

Presentation 2: Feedback and Favoritism in Sequential Elimination Contests

Qiang Fu (National University of Singapore)

This paper studies the optimal design of sequential-elimination contests. Only a portion of contestants survive a preliminary stage and proceed to the finale. We explore the optimal feedback policy for the contest- i.e.- whether the contest designer should publicize contestants' interim ranking prior to the finale. We show that the optimum depends on the objective function for contest design.

Presentation 3: Contest architecture by public disclosures

Toomas Hinnosaar (Collegio Carlo Alberto)

The paper studies optimal sequential contests with different objectives of the contest designer who chooses a disclosure rule which specifies at which points of time to publicly disclose the efforts of the previous contestants. I show that many but not all objectives are maximized by fully sequential or simultaneous contests.

Presentation 4: Voluntary Disclosure in Unfair Contests

Christian Ewerhart (University of Zurich)

We study incentives for the interim voluntary disclosure of verifiable information in probabilistic contests. Under a general condition on the primitives of the model (unfairness)- full revelation is shown to be the unique perfect Bayesian equilibrium outcome of the contest with pre-play communication. The proofs employ lattice-theoretic methods.

SESSION 8 - ARTS 2.03

BARGAINING AND LITIGATION

Chair: Tapas Kundu (Oslo)

Presentation 1: Optimism and Pessimism in Bargaining and Contests

Erya Yang (University of California- Irvine)

The choices between litigation and settlement- as well as effort choices in each option- when agents have risk attitudes that result in optimism or pessimism (in the rank dependent expected utility framework of Quiggin (1982))- are examined. Contest success function is used to relate effort choices to litigation success.

Presentation 2: The use of conflict as a bargaining tool

Anil Yildizparlak (Durham University)

In this paper we explore the role of conflict as an informational device by - means of a simple bargaining model with one-sided incomplete information: - Limited conflicts reveal information about the outcome of the all-out conflict - (that ends the game) because the outcomes of both types of confrontations - are driven by the relative strength of the parties.

Presentation 3: Contests and Bargaining with Up-front Investments

Zach Schaller (University of California- Irvine)

We present a conflict and bargaining game with two distinct contribution stages- the first prior to bargaining and thought of as an up-front investment- and the second in the event of failed settlement. Agents may arrive at a complete information conflict equilibrium where optimal preparations are actually less than those under settlement.

Presentation 4: The Presumption of Validity in Patent Litigation

Tapas Kundu (Oslo Business School)

The presumption of validity is a fundamental aspect of patent litigation. While the validity presumption protects a patentee from frivolous litigation threats- it enhances her leverage and litigation incentive. We study an application of persuasion game in patent litigation to identify effects of the presumption criteria on litigation incentive.

SESSION 9 - ARTS 2.01

EXPERIMENTS (THEORY TESTING)

Chair: Jingfeng Lu (NUS)

Presentation 1: Voluntary Provision of Property Rights Under Inequity

Dave Bruner (Appalachian State University)

This paper derives the subgame-perfect Nash equilibrium to a two-stage game of production with rent-seeking that allows voluntary contributions to property rights in the first stage. Results of a laboratory experiment testing theoretical predictions are reported. Most notably- subjects with larger endowments contribute more to the security of production- yet inequity increases.

Presentation 2: The Effect of Competition on Risk Taking - An Experimental Study

Lorenzo Spadoni (Universities of Tuscany)

We investigate- theoretically and experimentally- the effects of competition in a contest in which players' probability of winning depends on the risk they take. We vary the level of competition in two ways: by increasing the number of players and by increasing the sensitivity of the contest to differences in performance.

Presentation 3: Enhancing Effort Supply with Prize-Augmenting Entry Fees: Theory and Experiments

Jingfeng Lu (National University of Singapore)

Entry fees are widely observed in contests. We study the effect of a prize-augmenting entry fee on expected total effort in an all-pay auction setting where the contestants' abilities are private information. While an entry fee reduces equilibrium entry- it can enhance the entrants' effort supply. Our theoretical model demonstrates that the optimal entry fee is strictly positive and finite. We design a laboratory experiment to empirically test the effect of entry fees on effort supply. Our results provide strong support for the notion that a principal can elicit higher effort using an appropriately set entry fee to augment the prize purse.

SESSION 10 - ARTS 2.03

MEMBERSHIP CHOICE

Chair: Dongryul Lee (Sungshin)

Presentation 1: Club Good Provision and Nested Contests

Friederike Blönnigen (TU Dortmund)

We analyze a framework of two clubs where relative aggregate club activity serves as a head start in a following contest. In stage one- club members maximize the sum of utility from club membership and expected utility from contest participation. Every player enters one of several different contests in stage two.

Presentation 2: Conflict and Migration: Mobility in Group Contests

Henrik Zaunbrecher (Maastricht University)

We introduce intergroup mobility to a group contest and test how this affects contest contributions in a lab experiment. We find that endogenous (voluntary) migration increases contest contributions- whereas exogenous migration (displacement) has a negative but insignificant effect relative to a baseline treatment without intergroup mobility.

Presentation 3: The Formation of Groups and Competition

Dongryul Lee (Sungshin University)

We study the endogenous group formation in a contest where individual players may form groups under open membership and exclusive membership before exerting effort to win the prize having the nature of public goods within the winning group. We find the equilibrium group structure under which neither every single player nor every group of players has an incentive to deviate from the group structure.

SESSION 11 - ARTS 2.01

BIASED CONTESTS

Chair: Tore Nilssen (Oslo)

Presentation 1: Affirmative Action Policies and Behavior in Promotional Tournaments: An Experiment

Subhasish M Chowdhury (University of Bath)

It is argued that incorporating Affirmative action (AA) policies results in more egalitarian outcomes and higher efforts. However, the effectiveness of different AAs, effects of introduction/ removal, and interaction with sabotage are open questions. We run a real-effort experiment with head-start and handicap. We find that ability-based AAs result in egalitarian outcomes and high effort of underdogs. Head-start has ambiguous effects on effort but increases the underdog's winning chances. Handicap is useful for increasing effort and decreasing sabotage. If applied randomly, AA reduces efforts of the negatively affected agents. The effects of introduction/ elimination of different AAs are heterogeneous.

Presentation 2: On the suboptimality of perfectly leveling the playing field in dynamic contests.

Marco Serena (Max Planck Institute for Tax Law and Public Finance)

We consider best-of-three Tullock contests and all-pay auctions between two ex-ante identical players. An effort-maximizing contest designer commits ex-ante to a vector of three (dis)advantages to give to each player during the (at most) three matches of the contest.

Presentation 3: On the Optimal Design of Lottery Contests

Zenan Wu (Peking University)

We develop a novel technique that allows us to obtain optimal multiplicative biases for asymmetric Tullock contests -- i.e.- the weights placed on contestants' effort entries in the contest success function. Our approach is not limited to total effort maximization- and applies to contest design problems with noncanonical objective functions.

Presentation 4: Beating the Matthew Effect: Head Starts and Catching Up in a Dynamic All-Pay Auction

Tore Nilssen (University of Oslo)

A principal aiming at maximising total expected effort- distributes a prize over two consecutive all-pay auctions. Contestants are heterogeneous in both ex-ante head start and advantage gained from winning contest one. With a large head start- the principal runs a single contest. Otherwise- he does better by running two contests.

SESSION 12 - ARTS 2.03

PARALLEL BATTLEFIELDS

Chair: Dan Kovenock (Chapman)

Presentation 1: Generalising Conflict Networks

Paul M Gorny (University of East Anglia)

We investigate the behaviour of agents in bilateral contests within arbitrary network structures when valuations and efficiencies are heterogenous. We provide conditions for when equilibria exist in either mixed or pure strategies- when they are unique and describe equilibria that can shed light on bullying/bandwagoning behaviour.

Presentation 2: Multi-Battle Rent Seeking Contests over Complementary Battlefields

Daniel Stephenson (Chapman University)

Achieving success in one conflict can often enhance the value of achieving success in other conflicts. This paper investigates multi-battle contests where agents allocate resources to compete for divisible prizes that serve as complementary inputs to payoffs with constant elasticity. These contests are shown to possess a unique Nash equilibrium.

Presentation 3: Testing Networks of Conflict

Sebastian Cortes Corrales (University of Leicester)

We experimentally investigate behaviour in networks of conflict. Participants are asked to allocate a fixed endowment across conflicts in order to win some prizes. To test the equilibrium predictions- we utilise properties of the Dirichlet distribution. The results give support to the equilibrium predictions across different networks and prize values.

Presentation 4: Segmented Equilibria in the N-Player Colonel Blotto Game

Dan Kovenock (Chapman University)

We extend the analysis of the Colonel Blotto game to N > 2 players. In equilibrium- players may endogenously partition themselves into subsets of battlefields- rather than competing in every battlefield. We provide a new method for constructing equilibrium joint distributions that may aid in examining extensions of the game.

USEFUL INFORMATION

LOCAL HOSTS

- Subhasish M. Chowdhury (S.M.Chowdhury@bath.ac.uk)
- Paul M. Gorny (P.Gorny@uea.ac.uk)
- Anwesha Mukherjee (A.Mukherjee@uea.ac.uk)
- Ted Turocy (T.Turocy@uea.ac.uk)

CONFERENCE VENUE

- The conference will be held at The University of East Anglia, Norwich.
- The conference will be run in the Arts Building on the second floor, rooms 2.01, 2.03 and 2.06. This is point 9, The Teaching Wall, on the campus map.
- Presentations will take place in rooms 2.01 and 2.03.
- Refreshments and meals will be served in 2.06.

TRANSPORT

- Norwich is well conected by train and bus with London, and by flight with Amsterdam.
- The University of East Anglia is on the 25/26 bus route, which departs from the train station and stops at Castle Meadow.
- It is advisable to book taxis early on, and over the phone.

CONFERENCE DINNERS

- The Dinner on Monday 25 will be at Ali Tandoori (http://www.alitandoori.co.uk/about.html)
- The Dinner on Tuesday 26 will be at The Georgian Townhouse. (http://www.thegeorgiantownhousenorwich.com/)

MISC

- There are shops and ATMs on campus, 17 on the campus map.
- Norwich, in general, is a pretty safe city. In case of any concern, simply ask a local host!

TAXIS

ABC Taxis - 01603 666333 | Courtesy Taxis - 01603 446644 | Green Frog - 01603 744747

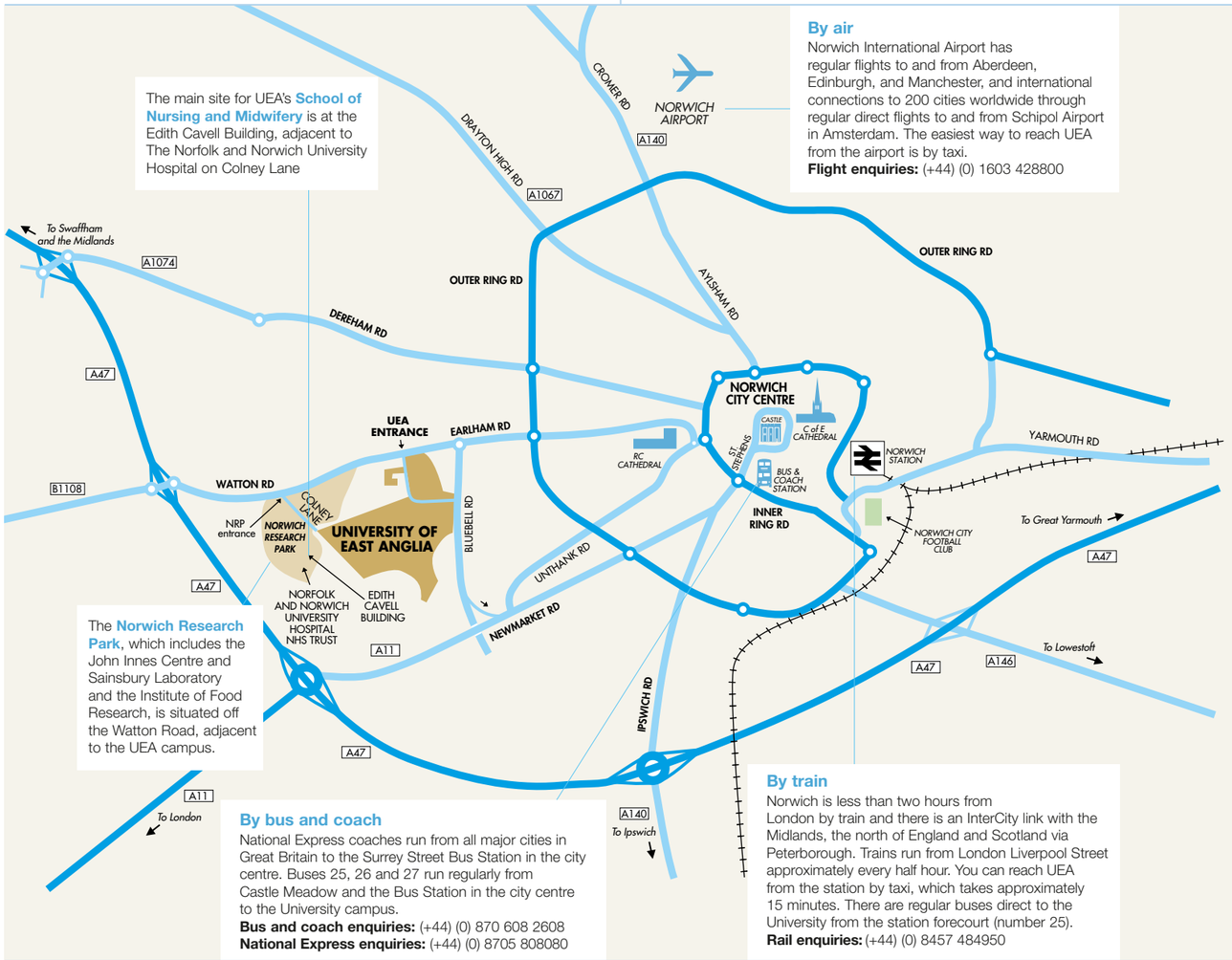
GETTING TO UEA

The University and the city of Norwich are well served by road, train, and air connections from all regions of the UK. Regular links with the continent by sea and air are also available.

Distances from Norwich:

London	115 miles
Birmingham	175 miles
Harwich	60 miles
Glasgow	383 miles
Leicester	116 miles
Manchester	185 miles
Newcastle	257 miles
Stansted	65 miles

BY CAR From London take the M11/A11; just outside Norwich take the A47 (Southern Bypass) in the direction of Swaffham; the University is signposted off at the next exit. If you are driving from the North or the Midlands, you can use the A47 via King's Lynn, or the A14 as far as Newmarket and then take the A11 to Norwich. UEA is situated on the outskirts of Norwich, around two miles west of the city centre, just off the Earlham Road (B1108) which is one of the main roads out of the city.



UEA CAMPUS

The Workshop will be held n the ARTS Building, on Campus at UEA in rooms; 2.01, 2.03, 2.06. This is point 9, The Teaching Wall, on the campus map.

A range of amenities are available on Campus including cash points, cafes and shops (17).

WIFI

UEA has two wireless networks available, Eduroam and The Cloud. If you are coming from an institution which is part of eduroam, you should connect to the network automatically. However it is possible that you may need to manually enter your login information.

If you do have any issues using Eduroam, or are not from an institution which uses it, then you will be able to connect your devices to The Cloud. Simply select _The Cloud from the list of available wireless networks, then open your browser. This will take you to a registration page where you will need to enter your details, including your choice of username and password.

The Cloud is free to use and is also available in areas of central Norwich.

NORWICH

Norwich is a friendly and diverse city, both vibrant and attractive. A hotbed for the arts, culture and tourism, it is a city full of stunning architecture. Norwich has a Norman Cathedral and a 12th Century Castle, as well as an open-air market, a range of independent shops in the Norwich Lanes, and restaurants, cinemas, galleries, theatres, cafes and pubs.

The City's medieval centre of cobbled streets remains largely intact, but there is still space for modern buildings such as the Forum, a stunning piece of contemporary architecture. Its glass front overlooks the colourful six-day market and reflects the city in all its diversity.

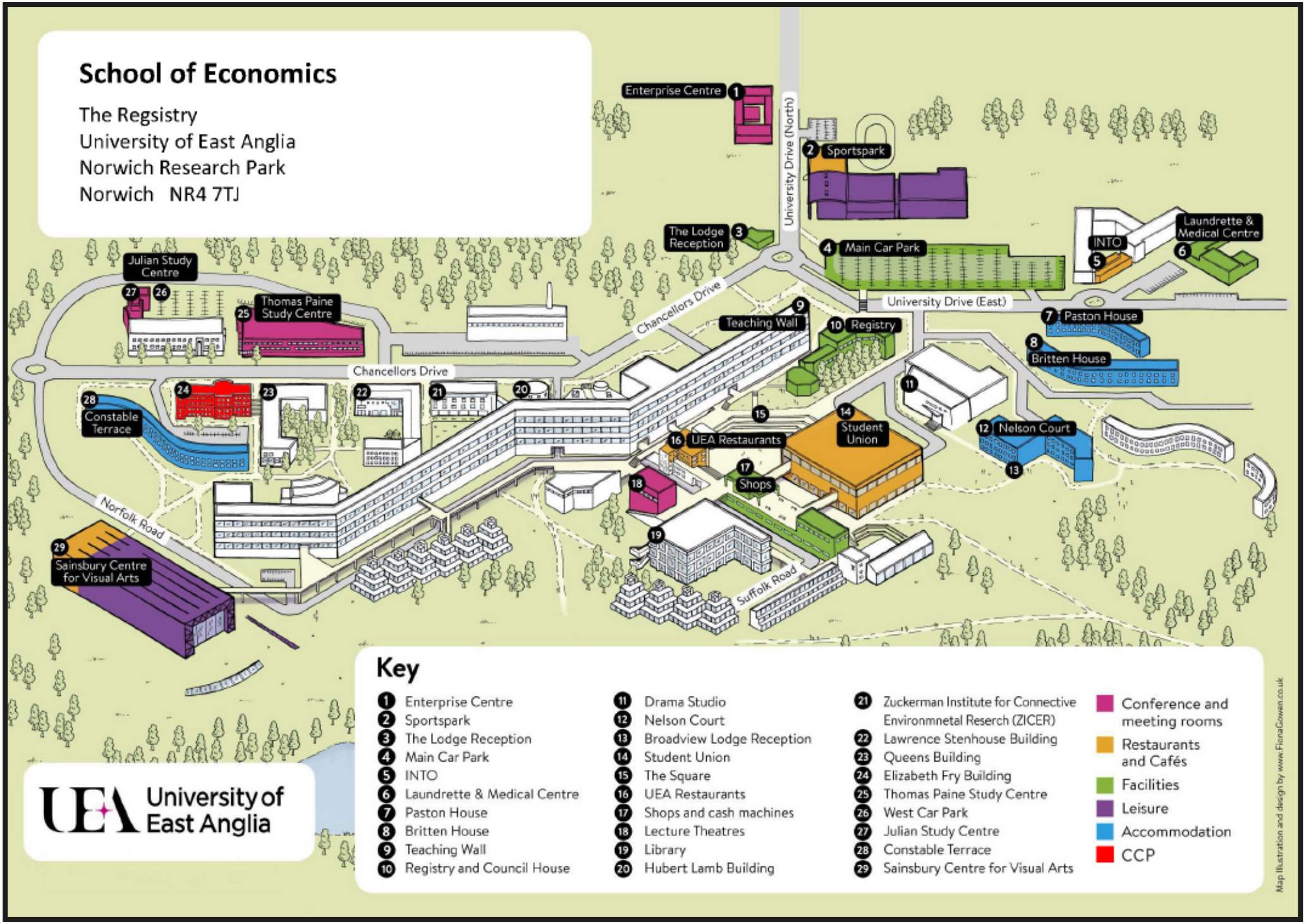
For further information about Norwich;

http://www.visitnorwich.co.uk/

http://www.visitnorfolk.co.uk/explore/Norwich.aspx

School of Economics

The Regsistry
University of East Anglia
Norwich Research Park
Norwich NR4 7TJ



Key

1. Enterprise Centre
2. Sportspark
3. The Lodge Reception
4. Main Car Park
5. INTO
6. Laundrette & Medical Centre
7. Paston House
8. Britten House
9. Teaching Wall
10. Registry and Council House
11. Drama Studio
12. Nelson Court
13. Broadview Lodge Reception
14. Student Union
15. The Square
16. UEA Restaurants
17. Shops and cash machines
18. Lecture Theatres
19. Library
20. Hubert Lamb Building
21. Zuckerman Institute for Connective Environmnetal Reserch (ZICER)
22. Lawrence Stenhouse Building
23. Queens Building
24. Elizabeth Fry Building
25. Thomas Paine Study Centre
26. West Car Park
27. Julian Study Centre
28. Constable Terrace
29. Sainsbury Centre for Visual Arts

- Conference and meeting rooms
- Restaurants and Cafés
- Facilities
- Leisure
- Accommodation
- CCP

UEA University of East Anglia

Map illustration and design by www.FionaGowen.co.uk

University of East Anglia
SCHOOL OF
ECONOMICS

cbess
Centre for Behavioural and
Experimental Social Science