

PSC 388/588: MODELS OF DEMOCRATIC POLITICS

FALL 2022
T 12:30-3:20pm
HARKNESS 112

Prof. Tasos Kalandrakis
Office: Harkness 336
Email: kalandrakis@rochester.edu
Office hours: W 9:00-11:00am or by appointment

This course focuses on models of democratic politics, covering a select subset of the formal theory literature in this area. It is designed as an upper level graduate seminar. With prior instructor permission, the course is also open to advanced undergraduates with a strong mathematical background.

Democracy is broadly construed as a set of rules and procedures allowing open and broad participation in the non-violent or non-coercive resolution of collective disagreement. As such, the course does not cover a large and emerging formal theory literature focusing on the politics of authoritarian regimes and/or transition to and from such regimes. Within the class of models of democratic politics, major emphasis will be placed on models that are actionable in the sense that they are amenable to efficient numerical evaluation when applied to naturally occurring settings. Detailed analysis of suitable numerical methods will be emphasized whenever possible, and students can expect some exposure to computer code to illustrate the numerical techniques.

Prerequisites: Coverage of numerical techniques and algorithms will be self-contained. Otherwise, the main mode of analysis will be that of non-cooperative game theory both with complete and incomplete information. Mastery of game theory at an introductory level (e.g., at the level of PSCI 408) is essential. As many applications will be at a more advanced level, additional background (e.g., at the level of PSCI 584) is desirable (but not required). All solution concepts employed will be reviewed in detail so that the dedicated student can supplement the required background.

Readings: The main readings for the course will be based on research articles as well as notes that will be distributed over the course of the semester.

Outline: The first half of the semester (roughly) will focus on a synthesis of classic and novel results and will be primarily lecture based. This portion will be dedicated to an analysis of the structure of modal representations of spaces of political disagreement and an in-depth coverage of both classic and novel results on the resolution of this disagreement through non-cooperative bargaining. In the second half, we will spend a portion of the class focusing on select published articles, some of which will be presented by students as part of the course requirements. We will determine article presentation assignments early in the semester to give ample time for preparation. We will focus on models of citizen participation, activism,

and group and party formation. This coverage is not meant to be comprehensive. For example, we will not consider models of information aggregation and will emphasize models of continuous contributions both in the public goods and group competition settings. We will conclude with applications in dynamic and ‘general equilibrium’ models of policy-making that incorporate both elite and citizen behavior.

The University of Rochester respects and welcomes students of all backgrounds and abilities. In the event you encounter any barrier(s) to full participation in this course due to the impact of disability, please contact the Office of Disability Resources.

Visit <http://www.rochester.edu/college/disability/> for more information.

Evaluation: Your final grade is based on class participation (25%), an in-class presentation (25%), and a final research paper (50%). Regarding class participation, you are expected to have read assigned articles or readings ahead of time and participate in discussion. Assignment of research papers for presentation will be negotiated at the beginning of the semester. There is flexibility on the content of the final research paper, which can have an empirical or formal component, or a combination thereof. Depending on the scope of the project, the paper may only contain preliminary analysis and results, and the details will be determined over the semester on a case by case basis. Students are expected to present their final project at the last day of class, while the final project will be due at a date (to be set) in the finals week. For students taking the 388 version of this class, the research paper requirement can be replaced by a literature review on a topic of mutual agreement.

Academic honesty: General University policies and guidelines regarding academic honesty apply.

Schedule: Below is a tentative list of topics and the readings for the course. Naturally, this schedule may change as the semester unfolds.

TOPIC 0 (WEEK 1) OVERVIEW AND LOGISTICS

TOPIC 1 (WEEKS 2-7) MODELS OF POLITICAL DISAGREEMENT – SOLUTION SETS – POLITICAL BARGAINING AND COALITION FORMATION – STRUCTURE OF EQUILIBRIUM SET – APPROXIMATION AND COMPUTATION

Class notes, [Banks and Duggan \(2000, 2006\)](#); [Baron \(1991\)](#); [Baron and Ferejohn \(1989\)](#); [Gomes \(2022\)](#); [Kalandrakis \(2004, 2006a,b, 2015a, 2021, 2022\)](#); [McKelvey \(1986\)](#); [Okada \(1996\)](#); [Tovey \(1992\)](#)

TOPIC 2 (WEEK 8) GOVERNMENT FORMATION & DURATION

[Baron \(1991, 1998\)](#); [Deirmeier and Feddersen \(1998\)](#); [Diermeier and Merlo \(2001\)](#); [Kalandrakis \(2015b\)](#); [Lupia and Strom \(1995\)](#)

TOPIC 3 (WEEK 9) ACTIVISM & COLLECTIVE ACTION I: INTRA-GROUP COOPERATION

[Bergstrom, Blume and Varian \(1986\)](#); [Bonatti and Horner \(2011\)](#); [Marx and Mathews \(2000\)](#)

TOPIC 4 (WEEK 10) ACTIVISM & COLLECTIVE ACTION II: INTER-GROUP COMPETITION

Baik, Kim and Na (2001); Eliaz and Wu (2018); Esteban and Ray (2001)

TOPIC 5 (WEEK 11) VOTING THEORIES: PIVOTALITIES & SIGNALS

Herrera, Morelli and Palfrey (2014); Kalandrakis (2009b); Piketty (2000); Razin (2003); Shotts and Meiorowitz (2009)

TOPIC 6 (WEEK 12) POLITICAL PARTIES

Eguia (2011); Jackson and Moselle (2002); Levy (2004); Snyder and Ting (2002)

TOPIC 7 (WEEK 13) GENERAL EQUILIBRIUM MODELS

Austen-Smith and Banks (1988); Baron (1993); Caplin and Nalebuff (1997); Morelli (2004); Osborne and Tourky (2008)

TOPIC 8 (WEEK 14) DYNAMIC ELECTIONS

Alesina and Tabellini (1990); Bernhardt, Camara and Squintani (2011); Forand (2014); Kalandrakis (2009a)

Bibliography

Alesina, A. and G. Tabellini. 1990. "A Positive Theory of Fiscal Deficits and Government Debt." *The Review of Economic Studies* 57(3):403–414.

Austen-Smith, David and Jeffrey Banks. 1988. "Elections, Coalitions, and Legislative Outcomes." *American Political Science Review* 49:405–422.

Baik, K. H., I. Kim and S. Na. 2001. "Bidding for a group-specific public-good prize." *Journal of Public Economics* 82:415–429.

Banks, Jeffrey S. and John Duggan. 2000. "A Bargaining Model of Collective Choice." *American Political Science Review* 94:73–88.

Banks, Jeffrey S. and John Duggan. 2006. "A General Bargaining Model of Legislative Policy-making." *Quarterly Journal of Political Science* 1:49–85.

Baron, David P. 1991. "A Spatial Bargaining Theory of Government Formation in a Parliamentary System." *American Political Science Review* 85:137–164.

Baron, David P. 1993. "Government Formation and Endogenous Parties." *American Political Science Review* (87):34–47.

Baron, David P. and John A. Ferejohn. 1989. "Bargaining in Legislatures." *American Political Science Review* 83:1181–1206.

- Baron, D.P. 1998. “Comparative Dynamics of parliamentary Governments.” *American Political Science Review* 92:553–609.
- Bergstrom, T., L. Blume and H. Varian. 1986. “On the Private Provision of Public Goods.” *Journal of Public Economics* 29:25–49.
- Bernhardt, D., O. Camara and F. Squintani. 2011. “Competence and Ideology.” *Review of Economic Studies* 78:487–522.
- Bonatti, A. and J. Horner. 2011. “Collaborating.” *American Economic Review* 101:632–663.
- Caplin, A. and B. Nalebuff. 1997. “Competition among Institutions.” *Journal of Economic Theory* 72:306–342.
- Deirmeier, Daniel and Timothy Feddersen. 1998. “Cohesion in Legislatures and the Vote of Confidence Procedure.” *American Political Science Review* 92:611–21.
- Diermeier, D. and A. Merlo. 2001. “Government Turnover in Parliamentary Democracies.” *Journal of Economic Theory* 94:46–79.
- Eguia, John X. 2011. “Endogenous Parties in an Assembly.” *American Journal of Political Science* 55:16–26.
- Eliaz, Kfir and Qinggong Wu. 2018. “A simple model of competition between teams.” *Journal of Economic Theory* pp. 372–392.
- Esteban, Joan and Debraj Ray. 2001. “Collective Action and the Group Size Paradox.” *American Political Science Review* 95(3):663–672.
- Forand, Jean Guillaume. 2014. “Two-party competition with persistent policies.” *Journal of Economic Theory* 152:64–91.
- Gomes, A. 2022. “Coalitional bargaining games: A new concept of value and coalition formation.” *Games and Economic Behavior* 132:463–477.
- Herrera, H., M. Morelli and T. Palfrey. 2014. “Turnout and Power Sharing.” *The Economic Journal* 124:F131–F162.
- Jackson, Matthew O. and Boaz Moselle. 2002. “Coalition and Party Formation in a Legislative Voting Game.” *Journal of Economic Theory* 103(1):49–87.
- Kalandrakis, Tasos. 2004. “Equilibria in Sequential Bargaining Games as Solutions to Systems of Equations.” *Economics Letters* 84:407–411.
- Kalandrakis, Tasos. 2006*a*. “Generic Regularity of Stationary Equilibrium Points in a Class of Bargaining Games.” *Economic Theory* 28:309–329.

- Kalandrakis, Tasos. 2006b. "Proposal rights and political power." *American Journal of Political Science* 50(2):441–448.
- Kalandrakis, Tasos. 2009a. "A Reputational Theory of Two-party competition." *Quarterly Journal of Political Science* 4(4):343–378.
- Kalandrakis, Tasos. 2009b. "Robust Rational Turnout." *Economic Theory* 41:317–343.
- Kalandrakis, Tasos. 2015a. "Computation of equilibrium values in the Baron and Ferejohn bargaining model." *Games and Economic Behavior* 94:29–38.
- Kalandrakis, Tasos. 2015b. "A Theory of Minority and Majority Governments." *Quarterly Journal of Political Science* 3(2):309–328.
- Kalandrakis, Tasos. 2021. "A priori bounds on legislative bargaining agreements." *American Journal of Political Science* <https://doi.org/10.1111/ajps.12679>.
- Kalandrakis, Tasos. 2022. "Generalized medians and a political center." *Social Choice and Welfare* 58:301–319.
- Levy, G. 2004. "A model of political parties." *Journal of Economic Theory* 115:250–277.
- Lupia, A. and K. Strom. 1995. "Coalition Termination and the Strategic Timing of Parliamentary Elections." *American Political Science Review* 89:648–665.
- Marx, Lesley and Steven Mathews. 2000. "Dynamic Voluntary Contribution to a Public Project." *Review of Economic Studies* 67:327–358.
- McKelvey, Richard D. 1986. "Covering, Dominance, and Institution-Free Properties of Social Choice." *American Journal of Political Science* 30(2):283–314.
- Morelli, M. 2004. "Party Formation and Policy Outcomes under Different Electoral Systems." *Review of Economic Studies* 71:829–853.
- Okada, A. 1996. "A Noncooperative Coalitional Bargaining Game with Random Proposers." *Games and Economic Behavior* 16(1):97–108.
- Osborne, M.J. and R. Tourky. 2008. "Party Formation In Single-Issue Politics." *Journal of the European Economic Association* 6:974–1005.
- Piketty, T. 2000. "Voting as communicating." *Review of Economic Studies* 67:169–191.
- Razin, R. 2003. "Signaling and election motivations in a voting model with common values and responsive candidates." *Econometrica* 71:1083–1119.
- Shotts, K. and A. Meirowitz. 2009. "Pivots versus signals in elections." *Journal of Economic Theory* 144:744–771.

Snyder, James M. and Michael Ting. 2002. "An Informational Rationale for Political Parties." *American Journal of Political Science* pp. 90–110.

Tovey, Craig A. 1992. "A polynomial-time algorithm for computing the yolk in fixed dimension." *Mathematical Programming* 57:259–277.