

# Bargaining Using Formal Models (Negociación en base a modelos formales)

## July 23-27

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**Introduction:** Political actors engaging in competition often behave strategically in their behavior, and in their efforts to bargain and negotiate with each other. To understand strategic behavior, this workshop introduces students to the basics of formal theory, with an emphasis on non-cooperative game theory. We will discuss the fundamental concepts of rational choice, cooperative games, and the Nash, subgame, sequential, and Bayesian solution concepts. Further, we will seek to understand how game theory applies to both theoretical and applied settings, with an emphasis on strategic negotiation. These bargaining settings will allow students to better understand key political situations, such as wars, strikes, or legislative deadlock.

**Background:** This course assumes no advanced mathematical background, though some introduction to basic algebraic concepts and calculus will be beneficial. Students with no background should gain an introduction to formal mathematical models that can serve as a basis for future research and applied work. Students with more familiarity with formal models should gain an ability to refine their work, improve their familiarity with these models, and improve their use of game theoretic tools. The course will further emphasize better use of these tools and the application of these tools to applied settings.

**Text:** Andrew H. Kydd. 2015. *International Relations Theory: The Game Theoretic Approach*. Cambridge.

## Course Schedule and Reading List

**July 23. Introduction to Bargaining.** Abhinav Muthoo. 2000. A Non-Technical Introduction to Bargaining Theory. *World Economics* 1(2): 145-166;

**July 24. Formalization, Utility Theory, and Specifying Games.** Kydd pp. 12-59.

**July 25. Cooperative and Non-Cooperative Bargaining.** Kydd 55-74; John F. Nash. 1950. The Bargaining Problem. *Econometrica* 18(2): 155-162; James D. Fearon. 1995. Rationalist Explanations for War. *International Organization* 49(3): 379-414.

**July 26. Incomplete Information and Signaling.** Kydd ch. 6, 9. Navin Bapat, Luis de la Calle, Kaisa Hinkkainen, Elena McClean. 2016. Economic Sanctions, Transnational Terrorism, and the Incentive to Misrepresent. *Journal of Politics* 78(1): 249-264.

**July 27. Commitment Problems.** Kydd ch. 5, Robert Powell. 2006. War as a Commitment Problem. *International Organization* 60(1): 169-203.