

Preliminary Schedule: Causal inference in environmental and social science – SAGM002

	Time	Day 1: May 10 2021	Day 2: May 11 2021	Day 3: May 12 2021	Day 4: May 13 2021	Day 5: May 14 2021
Lectures	10-12h	Greetings, <i>Introduction to Causal inference</i> , and randomized controlled trials	<i>(Semi) Natural Experiments</i> : Panel data regressions, two-way fixed effects, and staggered treatment	<i>Simulated Counterfactuals</i> : matching methods, synthetic controls,	<i>Instruments & Interruptions</i> : instrumental variables, regression discontinuity design	<i>Cutting edges</i> : Structural equation modeling, Bayesian inference and machine learning techniques
Seminars	13-15h	<i>Replication</i> : Jayachandran, S. et al. (2017). Cash for carbon: A randomized trial of payments for ecosystem services to reduce deforestation. <i>Science</i> , 357(6348), 267-273.	<i>Replications</i> : Card, D., & Krueger, A. B. (1994). Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania. <i>AER</i> , 84(4), 772-793. Binder, S., & Neumayer, E. (2005). Environmental pressure group strength and air pollution: An empirical analysis. <i>Ecol Econ</i> , 55(4), 527-538. Marcus, M., & Sant'Anna, P. H. (2021). The role of parallel trends in event study settings: An application to environmental economics. <i>JAERE</i> , 8(2), 235-275.	<i>Replications</i> : LaLonde, R. J. (1986). Evaluating the econometric evaluations of training programs with experimental data. <i>AER</i> , 604-620. Ferraro, P. J., & Hanauer, M. M. (2014). Quantifying causal mechanisms to determine how protected areas affect poverty through changes in ecosystem services and infrastructure. <i>PNAS</i> , 111(11), 4332-4337. Bayer, P., & Aklin, M. (2020). The European Union emissions trading system reduced CO2 emissions despite low prices. <i>PNAS</i> , 117(16), 8804-8812.	<i>Replications</i> : Binder, S., & Neumayer, E. (2005). Environmental pressure group strength and air pollution: An empirical analysis. <i>Ecol Econ</i> , 55(4), 527-538. Kim, S. E., & Urpelainen, J. (2017). The polarization of American environmental policy: A regression discontinuity analysis of Senate and House votes, 1971–2013. <i>RPR</i> , 34(4), 456-484. Abou-Chadi, T., & Krause, W. (2020). The causal effect of radical right success on mainstream parties' policy positions: A regression discontinuity approach. <i>BJPS</i> , 50(3), 829-847.	<i>Student presentations of own project ideas</i>
Consultations	15-16h	./.	./.	./.	./.	./.