



Master thesis - Current list of topics

Topic	Title:	Pot. Supervisor:	Related topics (builds on / in parallel):
P.02	City climate games	Eisenack	
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Develop game theoretic models that shed light on the functions that cities may have in dealing with climate change on the global level.		
	References: Bulkeley, H. (2010) Cities and the Governing of Climate Change, Annual Review of Environment and Resources, 35, 229–253. Hagen, A., L. Kähler and K. Eisenack (forthcoming) Transnational Environmental Agreements with Heterogeneous Actors, In S. Çağatay (ed.) Economics of International Environmental Agreements: a Critical Approach, Routledge.		
	Prerequisites (methods / theories / content): Game theory, environment and resource economics		
	Advantageous / to learn (methods / theories / content): Urban geography, economy, or related		

Topic	Title:	Pot. Supervisor:	
P.04	Mapping climate protection initiatives	Eisenack	
	<p>Description: Select and describe an illustrative set of non-governmental / bottom-up initiatives for climate policy and classify them by their (i) scope, (ii) reasons for coming into existence, (iii) potential environmental effectiveness.</p> <p>References: Earlier student project reports Bulkeley, H. and Broto, V. (2013). Government by experiment? global cities and the governing of climate change, Transactions of the Institute of British Geographers, 38, 361–375. Hagen, A., L. Kähler and K. Eisenack (forthcoming) Transnational Environmental Agreements with Heterogeneous Actors, In S. Çağatay (ed.) Economics of International Environmental Agreements: a Critical Approach, Routledge. Helfrich, S., Heinrich-Böll-Stiftung (Hg.) (2012) Commons – Für eine neue Politik jenseits von Markt und Staat. Transcript Verlag Ostrom, E. (2012) Nested externalities and polycentric institutions: must we wait for global solutions to climate change before taking actions at other scales?, Economic Theory, 49, 353-369.</p>		
	<p>Prerequisites (methods / theories / content): Comparative institutional analysis / empirical social science / climate policy</p>		
	<p>Advantageous / to learn (methods / theories / content): IAD / SES framework</p>		

Topic PE.01	Title: A Case of Knowledge Governance	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel): //
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Identify a case and conduct a case study on knowledge governance Data and information do not exogenously ‘fall upon’ actors in an arbitrary way. Available data and information is also not used by actors ‘as is’. Instead, institutions determine to a considerable degree (i) the kind of data the actors aim to obtain; (ii) the kind of uncertainties or data gaps they accept or aim to resolve; (iii) the way how data is further processed; (iv) the way how data is used for decision-making; (v) the possibility to shape the data or information that becomes available to others. Organisations are shaped by various rules that settle how sub-units or individuals working with or within an organisation shall behave in relation to data and information. Internal standards determine what kind of information is to be used in certain repeated decision-making situations, sometimes with detailed prescriptions how to integrated data at different stages. The master thesis selects a case where knowledge governance of information about the natural environment matters, and traces how it is organized in this case.		
	References:		
	Prerequisites (methods / theories / content): Institutional economics, case study methods		
	Advantageous / to learn (methods / theories / content):		

Topic	Title: The influence of electricity pricing on power storage	Pot. Supervisor: Neetzow	
E.01	Description: Develop a method/model to evaluate the influence of different pricing schemes on the efficient deployment of electricity storage.		
	References: Neetzow, P. and Pechan, A. (2016) Electricity grid and storage – complements or substitutes. Work in progress. Sioshansi, R. (2014) When energy storage reduces social welfare. Energy Economics 41. Gravelle (1976) The peak load problem with feasible storage. The Economic Journal 86(342).		
	Prerequisites (methods / theories / content): Energy economics, Capability to understand analytic/numeric models		
	Advantageous / to learn (methods / theories / content): Constrained optimization, modelling techniques, energy system institutions		

Topic	Title: Resource dynamics and institutional change: a systematic literature review	Pot. Supervisor: Eisenack	
K.01	Description: A review of the role of resource dynamics in the institutional change literature.		
	References: Petticrew, M. and Roberts, H., 2008. Systematic reviews – do they ‘work’ in informing decision-making around health inequalities? Health Economics 3, 197-211. Eakin, H., 2005. Institutional Change, Climate Risk, and Rural Vulnerability: Cases from Central Mexico. World Development 33, 1923–1938.		
	Prerequisites (methods / theories / content): Institutions, institutional change, descriptive statistics		
	Advantageous / to learn (methods / theories / content): Systematic reviews, state of the literature on institutional change, coding processes, conceptual mapping.		

Topic KC.02	Title: Communication international climate politics with the simulation game <i>KEEP COOL mobil</i>	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Investigate game dynamics and study the potential for education for sustainable development using descriptive and inferential statistics on game behavior and survey data.		
	References: Eisenack, Klaus (2013): A Climate Change Board Game for Interdisciplinary Communication and Education . In: Simulation & Gaming, 44 (2-3), 328–348. Meya, J.N., Eisenack, K. (2017): Effectiveness of gaming for communicating and teaching climate change. <i>THESys Discussion Paper No. 2017-3</i> . Humboldt-Universität zu Berlin, Berlin, Germany. https://edoc.hu-berlin.de/series/thesysdiscpapers Mender de Suarez, J.; Suarez, P.; Bachofen, C.; Fortugno, N.; Goentzel, J.; Gonçalves, P.; Grist, N.; Macklin, C.; Pfeifer, K.; Schweizer, S.; van Aalst, M.; Virji, H. (2012): Games for a New Climate: Experiencing the Complexity of Future Risks , Technical report, The Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University , Boston (MA, USA). Wu, J. S.; Lee, J. J.(2015): Climate change games as tools for education and engagement. <i>Nature Climate Change</i> , 5, 413–418.		
	Prerequisites (methods / theories / content): Descriptive statistics; interest in simulation games		
	Advantageous / to learn (methods / theories / content): Simulation game, quantitative social research, econometrics, programming in R/ MS Excel		