



**CHIPS**  
Climate Change Impacts and Policies  
in Heterogeneous Societies

## CHIPS expert workshop session: Economic impacts and distributional effects of extreme events on the global level

May 27, 2021

**Background & Aims:** The CHIPS project aims to advance the representation of economic impacts in integrated assessment models in two ways. The first is to develop new economic damage projections for extreme events, in particular tropical cyclones. The second is to advance the representation of distributional effects. This workshop aims for an exchange between CHIPS project partners and external experts on these topics to advance the work and facilitate possible collaborations. Ongoing work in CHIPS as well as recent work by invited experts is presented and room for in-depth discussion is provided.

9:00-9:05	<b>Welcome to the first CHIPS expert workshop</b>	<b>Chair:</b> Christian Otto
9:05-10:45	<b>First session: Modeling physical and economic impacts of extreme events on the global level</b>	
	<ul style="list-style-type: none"> <li>• <b>Thomas Vogt (PIK):</b> Modeling tropical cyclone surge inundation on a global scale (15 min + 5 min Q&amp;A)</li> <li>• <b>Paul Bates (U Bristol) &amp; Niall Quinn (Fathom, Bristol):</b> Challenges and advantages of multi-hazard approaches: combined modeling of fluvial, pluvial, and coastal flood damages (15 min + 5 min Q&amp;A)</li> <li>• <b>Hazem Krichene (PIK):</b> Country-specific long-term growth impacts of tropical cyclones and social costs of carbon (15 min + 5min Q&amp;A)</li> <li>• <b>Michael Berlemann (HSU):</b> Natural Hazard Risk and Life Satisfaction - Empirical Evidence for Hurricanes (15 min + 5 min Q&amp;A)</li> <li>• General Discussion</li> </ul>	<b>Chair:</b> Christian Otto <b>Minutes:</b> Franziska Piontek
10:45-11:05	<i>Coffee Break</i>	
11:05-12:35	<b>Second session: From micro to macro: event-based informs integrated assessment modeling with distributional effects</b>	
	<ul style="list-style-type: none"> <li>• <b>Thomas Vogt (PIK):</b> Income-specific damage functions without spatially-explicit data on income distribution (15 min + 5 min Q&amp;A)</li> <li>• <b>Shouro Dasgupta (CMCC):</b> Global empirical assessment of income and inequality elasticities of temperature (15 min + 5 min Q&amp;A)</li> <li>• <b>Bjoern Soergel (PIK):</b> Experiences from integrating SDGs into IAM (15 min + 5 min Q&amp;A)</li> <li>• General Discussion</li> </ul>	<b>Chair:</b> Franziska Piontek <b>Minutes:</b> Christian Otto
12:35-13:00	<b>Open Discussion</b>	<b>Chair &amp; Minutes:</b> Thomas Vogt