Week 1

Date	August 24th
Topic	Overview of the Intergovernmental Panel on Climate Change
Readings	Stocker, Adapting the Assessments, *Nature Geoscience*, 2013 Stocker and Plattner, Rethink IPCC Reports, *Nature*, 2014 Vardy et al. The Intergovernmental Panel on Climate Change: Challenges and Opportunities, *Annual Review of Environment and Resources*, 2017 Mastrandrea et al., Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties, 2010 Mastrandrea et al., The IPCC AR5 guidance note on consistent treatment of uncertainties: a common approach across the working groups, *Climatic Change*, 2011
Lead & Contributor	Kevin leads introduction with guest speakers and IPCC authors Jess Tierney and Diana Liverman

Week 2

Date	August 31st
Topic	Emissions Scenarios
Readings	Moss et al. The next generation of scenarios for climate change research and assessment, *Nature*, 2010 † Hausfather and Peters, Emissions – the 'business as usual' story is misleading, *Nature*, 2020 † Schwalm et al. RCP8.5 tracks cumulative CO2 emissions, *Proceedings of the National Academy of Sciences*, 2020 † Riahi et al. The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: an overview, *Global Environmental Change*, 2017 O'Neill et al. A new scenario framework for climate change research: the concept of shared socioeconomic pathways, *Climatic Change*, 2014 Meinshausen et al., The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500, *Geoscientific Model Development*, 2020 Grant et al., The appropriate use of reference scenarios in mitigation analysis, *Nature Climate Change*, 2020
Lead & Contributor	Brian Bidolli (Lead) and Alice Chapman (Discussant)

Week 3

Date	September 14th
Topic	Climate Sensitivity
Readings	† Knutti et al. Beyond equilibrium climate sensitivity, *Nature Geoscience*, 2017 † Sherwood et al., An assessment of Earth's climate sensitivity using multiple lines of evidence, *Review of Geophysics*, 2020
Lead & Contributor	Julie Edwards (Lead) and Aria Blumm (Discussant)

Week 4

Date	September 21st
Topic	Climate models and temperature projections
Readings	† Tokarska et al. Past warming trend constrains future warming in CMIP6 models, *Science Advances*, 2020 † Meehl et al. Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models, *Science Advances*, 2020 † Zelinka et al. Causes of higher climate sensitivity in CMIP6 models, *Geophysical Research Letters*, 2020
Lead & Contributor	Allie Berry (Lead) and Padmendra Shrestha (Discussant)

Week 5

Date	September 28th
Topic	1.5C and 2C temperature targets
Readings	† Rogelj et al., Scenarios towards limiting global mean temperature increase below 1.5 C, *Nature Climate Change*, 2018 † Tachiiri et al, Effect on the Earth system of realizing a 1.5 °C warming climate target after overshooting to the 2 °C level, Environmental Research Letters, 2019 Arnell et al., The impacts avoided with a 1.5 C climate target: a global and regional assessment, *Climatic Change*, 2018 Goodwin et al., Pathways to 1.5 C and 2 C warming based on observational and geological constraints, *Nature Geoscience*, 2018
Lead & Contributor	Julia Manobianco (Lead) and Valerie Rubalcava (Discussant)

Week 6

Date	October 5th
Topic	Drought and hydroclimate projections
Readings	† Cook et al. Twenty-First Century Drought Projections in the CMIP6 Forcing Scenarios, *Earth's Future*, 2020 † Overpeck and Udall, Climate change and the aridification of North America, *Proceedings of the National Academy of Sciences*, 2019 Lehner et al., Attributing the US Southwest's recent shift into drier conditions, Geophysical Research Letters, 2018 Mankin et al. Mid-latitude freshwater availability reduced by projected vegetation responses to climate change, *Nature Geoscience*, 2019 Park et al. Keeping global warming within 1.5 C constrains emergence of aridification, *Nature Climate Change*, 2018 Cook et al. Climate change and drought: From past to future, *Current Climate Change Reports*, 2018
Lead & Contributor	Aria Blumm (Lead) and Julie Edwards (Discussant)

Week 7

Date	October 12th
Topic	Glacier and ice sheet changes
Readings	† Briner et al. Rate of mass loss from the Greenland Ice Sheet will exceed Holocene values this century, *Nature*, 2020 † Zemp et al. Global glacier mass changes and their contributions to sea-level rise from 1961 to 2016, *Nature*, 2019 † Rignot et al. Four decades of Antarctic Ice Sheet mass balance from 1979–2017, *Proceedings of the National Academy of Sciences*, 2019 Immerzeel et al. Importance and vulnerability of the world's water towers, *Nature*, 2020 Smith et al. Pervasive ice sheet mass loss reflects competing ocean and atmosphere processes. *Science*, 2020 Marzeion et al. Partitioning the Uncertainty of Ensemble Projections of Global Glacier Mass Change, *Earth's Future*, 2020
Lead & Contributor	Padmendra Shrestha (Lead) and Allie Berry (discussant)

Week 8

Date	October 19th
Topic	Sea level rise
Readings	† Garner et al., Evolution of 21st century sea level rise projections. *Earth's Future*, 2018 † Palmer et al. Exploring the Drivers of Global and Local Sea-Level Change over the 21st Century and Beyond, *Earth's Future*, 2020 † Horton et al. Estimating global mean sea-level rise and its uncertainties by 2100 and 2300 from an expert survey, *npj Climate and Atmospheric Science*, 2020 Kopp et al. Usable science for managing the risks of sea-level rise, *Earth's Future*, 2019 Nauels et al. Attributing long-term sea-level rise to Paris Agreement emission pledges, *Proceedings of the National Academy of Sciences*, 2019
Lead & Contributor	Valerie Rubalcava (Lead) and Brian Bidolli (Discussant)

Week 9

Date	October 26th
Topic	Compound Extremes
Readings	† Zscheischler et al., Future climate risk from compound events, *Nature Climate Change*, 2018 † Vogel et al., Projected changes in hot, dry and wet extreme events' clusters in CMIP6 multi-model ensemble, *Environmental Research Letters*, 2020 † Balch et al, Social-environmental extremes: Rethinking extraordinary events as outcomes of interacting biophysical and social systems, *Earth's Future*, 2020 Zscheischler et al., A typology of compound weather and climate events, *Nature Reviews Earth & Environment*, 2020 AghaKouchak et al., Climate Extremes and Compound Hazards in a Warming World, *Annual Review of Earth and Planetary Sciences*, 2020
Lead & Contributor	Talia Anderson (Lead) and Matt Meko (Discussant)

Week 10

Date	November 2nd
Topic	Extreme event attribution
Readings	† Swain et al., Attributing Extreme Events to Climate Change: A New Frontier in a Warming World. *One Earth*, 2020 † Otto et al., The attribution question. *Nature Climate Change*, 2016 † Jézéquel et al. Behind the veil of extreme event attribution, *Climatic Change*, 2018 Bellprat and Doblas-Reyes, Attribution of extreme weather and climate events overestimated by unreliable climate simulations, *Geophysical Research Letters*, 2016
Lead & Contributor	Kangsan Lee (Lead) and Emily Conrad (Discussant)

Week 11

Date	November 9th
Topic	Wildland fire
Readings	† Abatzoglou et al., Global emergence of anthropogenic climate change in fire weather indices, *Geophysical Research Letters*, 2019 † Kelley et al., How contemporary bioclimatic and human controls change global fire regimes, *Nature Climate Change*, 2019 † Forkel et al. Recent global and regional trends in burned area and their compensating environmental controls, *Environmental Research Communications*, 2019 Bowman et al., Human exposure and sensitivity to globally extreme wildfire events, *Nature Ecology & Evolution*, 2017 Earl and Simmonds, Spatial and temporal variability and trends in 2001–2016 global fire activity, *Journal of Geophysical Research: Atmospheres*, 2018
Lead & Contributor	Kai Lepley (Lead) and Kangsan Lee (Discussant)

Week 12 (2 Topics)

Date	November 16th
Topic	Agriculture and Food Security & ENSO
Readings	
Lead & Contributor	Food: Andy Zimmer (Lead) and Kai Lepley (Discussant) ENSO: Maya Prabhakar (Lead) and Talia Anderson (Discussant)

Week 13 (1 Topic)

Date	November 23rd
Topic	Climate and disease
Readings	
Lead & Contributor	Disease: _ (Lead) and Andy Zimmer (Discussant)

Week 14 (2 Topics)

Date	November 30th
Topic	Flooding & Sea Ice
Readings	
Lead & Contributor	Flooding: Emily Conrad (Lead) and Julia Manobianco (discussant) Sea Ice: Matt Meko (Lead) and Maya Prabhakar (Discussant)

Week 15 current not schedule in case we have multiple AGU attendees