The commitment to global sea level rise over the next 500 years

Steven J. Phipps¹, Jason L. Roberts², Matt A. King³ and Xuebin Zhang⁴

¹Institute for Marine and Antarctic Studies, University of Tasmania, Hobart, AUSTRALIA.
²Australian Antarctic Division, Kingston, Tasmania, AUSTRALIA.
³School of Technology, Environments and Design, University of Tasmania, Hobart, AUSTRALIA.
⁴CSIRO Oceans and Atmosphere, Hobart, AUSTRALIA. (Email: Steven.Phipps@utas.edu.au)

1. Future climate scenarios

The climate scenarios studied here (as adopted by the IPCC Fifth Assessment Report).

2. Simulated climate change

The simulated changes in global temperature for each scenario, using a global climate model.

3. Antarctic contribution to global sea level

The simulated contribution of the Antarctic Ice Sheet to global sea level for each scenario, using different plausible ice sheet models. 95% of model estimates lie within the shaded ranges.

Acknowledgements: This work was supported by (i) the Australian Research Council’s Special Research Initiative for the Antarctic Gateway Partnership (Project ID SR140300001); (ii) the Centre for Southern Hemisphere Oceans Research, a joint research centre between QNLM and CSIRO; and (iii) the University of Tasmania and the Australian Government’s NCRIS program, through the Tasmanian Partnership for Advanced Computing.