

EDITORIAL

409 Action on demand

COMMENTS

- 410 **The Global South is the climate movement's unsung leader**
Chad Jonathan Frischmann et al.
- 412 **Emissions rebound from the COVID-19 pandemic**
Steven J. Davis et al.
- 415 **Glasgow forest declaration needs new modes of data ownership**
Gert-Jan Nabuurs et al.

RESEARCH HIGHLIGHTS

418 Our choice from the recent literature

NEWS & VIEWS

- 419 **Physical oceanography: Ocean sensitivity to freshwater**
Pepijn Bakker
- 420 **Greenland ice sheet: A candle burning from both ends**
Helene Seroussi and Colin R. Meyer
- 421 **Food security: Frost risk by dwindling snow cover**
Kurt Christian Kersebaum

RESEARCH BRIEFINGS

- 424 **Reducing uncertainty in simulated increases in heavy rainfall occurrence**
Chad W. Thackeray
- 426 **Marine phytoplankton growing season could be shortened in a warmer world**
Ryohei Yamaguchi and Keith B. Rodgers

PERSPECTIVE

- 428 **Using large ensembles of climate change mitigation scenarios for robust insights**
Céline Guivarch et al.

ARTICLES

- 436 **Observed influence of anthropogenic climate change on tropical cyclone heavy rainfall**
Nobuyuki Utsumi and Hyungjun Kim
- 441 **Constraining the increased frequency of global precipitation extremes under warming**
Chad W. Thackeray, Alex Hall, Jesse Norris and Di Chen
→RB p424

- 449 **Freshwater forcing of the Atlantic Meridional Overturning Circulation revisited**
Feng He and Peter U. Clark
→N&V p419
- 455 **Natural variability has dominated Atlantic Meridional Overturning Circulation since 1900**
Mojib Latif, Jing Sun, Martin Visbeck and M. Hadi Bordbar
- 461 **Antarctic sea-ice expansion and Southern Ocean cooling linked to tropical variability**
Eui-Seok Chung et al.
- 469 **Trophic level decoupling drives future changes in phytoplankton bloom phenology**
Ryohei Yamaguchi et al.
→RB p426
- 477 **Empirical evidence for recent global shifts in vegetation resilience**
Taylor Smith, Dominik Traxl and Niklas Boers
- 485 **The critical benefits of snowpack insulation and snowmelt for winter wheat productivity**
Peng Zhu et al.
→N&V p421

AMENDMENTS

- 491 **Author Correction: Storing frozen water to adapt to climate change**
Lisa Palmer
- 491 **Publisher Correction: Tropical cyclone climatology change greatly exacerbates US extreme rainfall-surge hazard**
Avantika Gori, Ning Lin, Dazhi Xi and Kerry Emanuel