

## Publications Dr. Maria A. Martin

### 2021

Martin, M. A., Alcaraz Sendra, O., Bastos, A., Bauer, N., Bertram, C., Blenckner, T., Bowen, K., Brando, P. M., Rudolph, T.B., Büchs, M., Bustamante, M., Chen, D., Cleugh, H., Dasgupta, P., Denton, F., Donges, J. F., Donkor, F.K., Duan, H., Duarte, C. M., Ebi, K. L., Edwards, C.M., Engel, A., Fisher, E., Fuss, S., Gaertner, J., Gettelman, A., Girardin, C. A.J., Gollledge, N. R., Green, J. F., Grose, M. R., Hashizume, M., Hebden, S., Hepach, H., Hirota, M., Hsu, H.H., Kojima, S., Lele, S., Lorek, S., Lotze, H. K., Matthews, H. D., McCauley, D., Mebratu, D., Mengis, N., Nolan, R. H., Pihl, E., Rahmstorf, S., Redman, A., Reid, C. E., Rockström, J., Rogelj, J., Saunio, M., Sayer, L., Schlosser, P., Sioen, G.B., Spangenberg, J.H., Stammer, D., Sterner, T.N.S., Stevens, N., Thonicke, K., Tian, H., Winkelmann, R., Woodcock, J. (2021). [Ten new insights in climate science 2021: a horizon scan](#). *Global Sustainability*, 4(e25), 1–20. <https://doi.org/10.1017/sus.2021.25>

Ludescher, J., Martin, M., Boers, N., Bunde, A., Ciemer, C., Fan, J., ... Schellnhuber, H. J. (2021). [Network-based forecasting of climate phenomena](#). *Proceedings of the National Academy of Sciences*, 118(47), e1922872118. <https://doi.org/10.1073/PNAS.1922872118>

### 2020

Schellnhuber, H. J., Martin, M. A. (2020). *Climate Change, Public Health, Social Peace* in Al-Delaimy, W., Ramanathan, V., Sánchez Sorondo, M. (Eds.) [Health of People, Health of Planet and Our Responsibility](#). Springer Book ISBN 978-3-030-31124-7; doi 10.1007/978-3-030-31125-4

### 2019

Pihl, E., Martin, M.A., Blome, T., Hebden, S., Jarzebski, M.P., Lambino, R.A., Köhler, C., Canadell, J.G., Ebi, K.L., Edenhofer, O., Gaffney, O., Rockström, J., Roy, J., Srivastava, L., Payne, D.R., Adler, C., Watts, S., Jacobsson, L., Sonntag, S.,

[10 New Insights in Climate Science 2019](#), Future Earth & The Earth League, Stockholm, 2019

### 2018

Schellnhuber, H. J., Martin, M. A. (2018). *The Earth System and Climate Science: Understanding a Very Complex Entity*. In Reference Module in Earth Systems and Environmental Sciences, Elsevier (<https://doi.org/10.1016/B978-0-12-409548-9.10582-2>)

### 2016

K. Vinke, M.A. Martin, S. Adams, F. Baarsch, A. Bondeau, D. Coumou, R.V. Donner, A. Menon, M. Perrette, K. Rehfeld, A. Robinson, M. Rocha, M. Schaeffer, S. Schwan, O. Serdeczny, A. Svirejeva-Hopkin

[Climatic risks and impacts in South Asia: extremes of water scarcity and excess](#)

*Reg Environ Change* (2016). doi:10.1007/s10113-015-0924-9

### 2015

Serdeczny, O., Martin, M. A. & Schellnhuber, H. J. (2015) *Vier Grad? Ein Blick hinter die 2°C-Leitplanke*. In Leitschuh, H., Michelsen, G., Simonis, U. E., Sommer, J., von Weizsäcker, E. U., *Jahrbuch Ökologie - Gesucht: Umweltpolitik*. S. Hirzel Verlag, Stuttgart, 20

### 2014

Maria A. Martin

[Das riskante Spiel mit dem Gleichgewicht - Kippelemente im Klimasystem](#)

politische ökologie, 139 - 2014, Klimaschutz - Neues globales Abkommen in Sichtweite?

Hans Joachim Schellnhuber und Maria A. Martin

[Climate-System Tipping Points and Extreme Weather Events](#)

Pontifical Academy of Sciences, Extra Series 41, Vatican City 2014

Pontifical Academy of Social Sciences, Acta 20, Vatican City 2014

Sustainable Humanity, Sustainable Nature: Our Responsibility

A. Levermann, R. Winkelmann, S. Nowicki, J. L. Fastook, K. Frieler, R. Greve, H. H. Hellmer, M. A. Martin, M. Mengel, A. J. Payne, D. Pollard, T. Sato, R. Timmermann, W. L. Wang, and R. A. Bindschadler

[Projecting Antarctic ice discharge using response functions from SeaRISE ice-sheet models](#)

Earth System Dynamics, 5(2), 271–293. doi:10.5194/esd-5-271-2014

## 2013

Bindschadler, R. A., Nowicki, S., Abe-ouchi, A., Aschwanden, A., Bueler, E., Choi, H., Fastook, J., Granzow, G., Greve, R., Gutowski, G., Herzfeld, U., Jackson, C., Johnson, J., Khroulev, C., Levermann, A., Lipscomb, W.H., Martin, M.A., Morlighem, M., Parizek, B. R., Pollard, D., Price, S.F., Ren, D., Saito, F., Sato, T., Seddik, H., Seroussi, H., Takahashi, K., Walker, R., Wang, W.L.:

[Ice-Sheet Model Sensitivities to Environmental Forcing and Their Use in Projecting Future Sea-Level \(The SeaRISE Project\).](#)

J. Glaciol 59, no. 214, 195-224, 2013.

Nowicki, S., Bindschadler, R. A., Abe-Ouchi, A., Aschwanden, A., Bueler, E., Choi, H., Fastook, J., Granzow, G., Greve, R., Gutowski, G., Herzfeld, U., Jackson, C., Johnson, J., Khroulev, C., Larour, E., Levermann, A., Lipscomb, W. H., Martin, M. A., Morlighem, M., Parizek, B. R., Pollard, D., Price, S.F., Ren, D., Rignot, E., Saito, F., Sato, T., Seddik, H., Seroussi, H., Takahashi, K., Walker, R., Wang, W. L. (2013).

[Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project I: Antarctica.](#) Journal of Geophysical Research: Earth Surface, 118(2), 1002–1024. doi:10.1002/jgrf.20081

Nowicki, S., Bindschadler, R. A., Abe-Ouchi, A., Aschwanden, A., Bueler, E., Choi, H., Fastook, J., Granzow, G., Greve, R., Gutowski, G., Herzfeld, U., Jackson, C., Johnson, J., Khroulev, C., Larour, E., Levermann, A., Lipscomb, W. H., Martin, M. A., Morlighem, M., Parizek, B. R., Pollard, D., Price, S.F., Ren, D., Rignot, E., Saito, F., Sato, T., Seddik, H., Seroussi, H., Takahashi, K., Walker, R., Wang, W. L. (2013).

[Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project II: Greenland.](#) Journal of Geophysical Research: Earth Surface, 118(2), 1025–1044. doi:10.1002/jgrf.20076

## 2012

Winkelmann, R., Levermann, A., Martin, M. A. and Frieler, K.:

[Increased future ice discharge from Antarctica owing to higher snowfall,](#)

Nature, 492(7428), 2012

H.J. Schellnhuber, W. Hare, O. Serdeczny, S. Adams, D. Coumou, K. Frieler, M.A. Martin, I.M. Otto, M. Perrette, A. Robinson, M. Rocha, M. Schaeffer, J. Schewe, X. Wang, L. Warszawski:

[Turn Down the Heat: Why a 4°C Warmer World Must be Avoided,](#)

World Bank, 2012.

Levermann, A., Albrecht, T., Winkelmann, R., Martin, M. A., Haseloff, M. and Joughin, I.:

[Kinematic first-order calving law implies potential for abrupt ice-shelf retreat,](#)

The Cryosphere, 6(2), 273–286, doi:10.5194/tc-6-273-2012, 2012b.

Winkelmann, R., Levermann, A., Frieler, K. and Martin, M. A.:

[Uncertainty in future solid ice discharge from Antarctica,](#)

The Cryosphere Discussions, 6(1), 673–714, doi:10.5194/tcd-6-673-2012, 2012a

## **2011**

Martin, M. A., Winkelmann, R., Haseloff, M., Albrecht, T., Bueller, E., Khroulev, C. and Levermann, A.:

[The Potsdam Parallel Ice Sheet Model \(PISM-PIK\) – Part 2: Dynamic equilibrium simulation of the Antarctic ice sheet,](#)

The Cryosphere, 5(3), 727–740, doi:10.5194/tc-5-727-2011, 2011.

Winkelmann, R., Martin, M. A., Haseloff, M., Albrecht, T., Bueller, E., Khroulev, C. and Levermann, a.:

[The Potsdam Parallel Ice Sheet Model \(PISM-PIK\) – Part 1: Model description,](#)

The Cryosphere, 5(3), 715–726, doi:10.5194/tc-5-715-2011, 2011.

## **2010**

Albrecht, T., Martin, M. A., Winkelmann, R., Haseloff, M. and Levermann, A.:

[Parametrization for Subgrid-Scale Motion of Ice-Shelf Calving-Fronts,](#)

The Cryosphere, 2010.