

# TALIA TAMARIN-BRODSKY

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## EDUCATION

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|----------------|---------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Postdoc</b> | University of Reading, Meteorology Department<br>Advisor: Prof. Ted Shepherd (maternity leave Mar.-Sep. 2019)             | 2017-present |
| <b>Ph.D.</b>   | Weizmann Institute, Department of Earth and Planetary Sciences<br>Advisor: Prof. Yohai Kaspi (graduated with distinction) | 2012-2017    |
| <b>M.Sc.</b>   | Tel-Aviv University, Physics Department<br>Advisor: Prof. Eyal Heifetz (Summa Cum Laude)                                  | 2009-2011    |
| <b>B.Sc.</b>   | Tel-Aviv University, Double major: Mathematics & Geophysics<br>(Magna Cum Laude)                                          | 2004-2008    |

## FELLOWSHIPS AND AWARDS

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|-------------------------------------------------|----------------------------------------------------|-----------|
| <b>James S. McDonnell Foundation-</b>           | Postdoc fellowship in complex systems              | 2017-2019 |
| <b>Women in Science award-</b>                  | Prize for postdoctoral studies, Weizmann Institute | 2017-2018 |
| <b>Prof. Israel Dostrovsky Award-</b>           | Prize of Excellence, Weizmann Institute            | 2017      |
| <b>The Shimon Reich Memorial Award-</b>         | Excellence in PhD accomplishments                  | 2016      |
| <b>Best Student Presentation-</b>               | Atmospheric & Oceanic Fluid Dynamics conference    | 2015      |
| <b>Rieger Foundation-</b>                       | PhD fellowship in Environmental Sciences           | 2013      |
| <b>Selim and Rachel Benin Scholarship Fund-</b> | For exceptional Jewish students                    | 2012      |
| <b>Excellence in Teaching Award-</b>            | Physics department, Tel-Aviv University            | 2010      |
| <b>Dean's list-</b>                             | Mathematics department, Tel-Aviv University        | 2007      |

## TEACHING EXPERIENCE

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| <b>Supervising a Postgraduate Student</b>                                                                                                      | 2017-2018 |
| Leading a research project and mentoring a student                                                                                             |           |
| <b>Teaching Assistant</b> , Weizmann Institute, Israel                                                                                         | 2012-2013 |
| Atmosphere and Ocean Fluid Dynamics                                                                                                            |           |
| <b>Teaching Assistant</b> , Tel-Aviv University, Israel                                                                                        | 2007-2011 |
| Classical Physics 1, Mathematical Introduction for Physicists,<br>Advanced Physics Lab A, Mathematical and Numerical Methods in Fluid Dynamics |           |

## SCIENTIFIC EXPERIENCE

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| <b>Session Co-organizer</b> , European Geosciences Union General Assembly      | 2019, 2020 |
| “Dynamics of the atmospheric circulation in past, present and future climates” |            |
| <b>Summer School</b> , University of Oxford, UK                                | 2013       |
| “NCAS Climate modeling summer school”, Physics Department                      |            |
| <b>Visiting Researcher</b> , University of Oxford, UK                          | 2012       |
| Advisor: Prof. David Marshall, Physics Department                              |            |
| <b>Summer School</b> , University of Cambridge, UK                             | 2012       |
| “Fluid Dynamics of Sustainability and the Environment”                         |            |

## PUBLICATIONS

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**T. Tamarin-Brodsky, K. Hodges, B. J. Hoskins and T. Shepherd**, “[Regional warming patterns shape changes in temperature variability](#)”, *Nat. Geosci.*, 10.1038/s41561-020-0576-3 (2020)

- T. Tamarin-Brodsky, K. Hodges, B. J. Hoskins and T. Shepherd**, “[A Dynamical Perspective on the Atmospheric Temperature Variability and its Projected Changes](#)”, *J. Clim.*, Vol. 32, 1707-1724 (2019)
- T. Tamarin-Brodsky and O. Hadas** “[The asymmetry of vertical velocity in current and future climate](#)”, *Geophys. Res. Lett.*, Vol. 46, 10.1029/2018GL080363 (2019)
- U. Mikolajewicz, et. al**, “[The climate of a retrograde rotating earth](#)”, *Earth Syst. Dynam.*, Vol. 9, 1191–1215 (2018)
- T. Tamarin-Brodsky and Y. Kaspi**, “[Enhanced poleward propagation of storms under climate change](#)”, *Nat. Geosci.*, 2017, Vol. 10, 908–913 (2017)
- T. Tamarin and Y. Kaspi**, “[The poleward shift of storm tracks under global warming: a Lagrangian perspective](#)”, *Geophys. Res. Lett.*, Vol. 44, L073633 (2017)
- T. Tamarin and Y. Kaspi**, “[Mechanisms controlling the downstream poleward deflection of midlatitude storm tracks](#)”, *J. Atmos. Sci.*, Vol. 74, 553-572 (2017)
- T. Tamarin and Y. Kaspi**, “[The poleward motion of Extratropical cyclones from a potential vorticity tendency analysis](#)”, *J. Atmos. Sci.*, Vol. 73, 1687-1707 (2016)
- T. Tamarin, J. R. Maddison, E. Heifetz and D. P. Marshall**, “[A geometric interpretation of eddy Reynolds stresses in barotropic ocean jets](#)”, *J. Phys. Oceanogr.*, Vol. 46, 2285–2307 (2016)
- T. Tamarin, E. Heifetz, M. Umurhan and R. Yellin**, “[On the nonnormal-nonlinear interaction mechanism between counter-propagating Rossby waves](#)”, *Theor. and Comp. Fluid Dyn. Journal*, Vol. 29, 3, 205-224 (2015)
- E. Heifetz, N. Harnik and T. Tamarin**, “[Canonical Hamiltonian representation of Pseudoenergy in shear flows using counter-propagating Rossby waves](#)”, *Q.J.R. Meteorol. Soc.*, Vol. 135, 2161–2167 (2009)
- In preparation*
- T. Tamarin-Brdosky and T. Shepherd**, “The downward influence of sudden stratospheric warmings on tropospheric variability”
- K. Kornhuber and T. Tamarin-Brdosky**, “The projected slow-down of mid-latitude temperature anomalies”

#### SELECTED CONFERENCE CONTRIBUTIONS

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| <b>American Geophysical Union (AGU) Fall Meeting (Invited Speaker)</b><br>California, USA                                          | 2019 |
| <b>Climate and Wave Dynamics Workshop</b> , Eilat, Israel                                                                          | 2019 |
| <b>Stormtracks Workshop</b> , Stockholm, Sweden<br>(Presented on my behalf by Prof. Ted Shepherd)                                  | 2018 |
| <b>SPARC General Assembly</b> , Kyoto, Japan<br>(Presented on my behalf by Ted Prof. Shepherd)                                     | 2018 |
| <b>American Geophysical Union (AGU) Fall Meeting (Invited Speaker)</b><br>California, USA (declined due to pregnancy restrictions) | 2018 |
| <b>Atmospheric and Oceanic Fluid Dynamics (AOFD)</b> Portland, USA                                                                 | 2017 |
| <b>4th International Conference on Earth System Modelling (4ICESM)</b><br>Max Planck Institute, Germany                            | 2017 |
| <b>Model Hierarchies Workshop</b> , Princeton University, USA                                                                      | 2016 |
| <b>SPARC DynVar workshop</b> , Helsinki, Finland                                                                                   | 2016 |
| <b>Atmospheric and Oceanic Fluid Dynamics (AOFD)</b> , Minneapolis, USA                                                            | 2015 |
| <b>Theoretical Advances in Planetary Flows and Climate Dynamics</b><br>Ecole de Physique Les Houches, France                       | 2015 |
| <b>European Geophysical Union (EGU) General Assembly</b> , Vienna, Austria                                                         | 2014 |
| <b>Atmospheric and Oceanic Fluid Dynamics (AOFD)</b> , Rhode Island, USA                                                           | 2013 |