

# NIR Z. BADT

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## EDUCATION

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<b>Postdoctoral Fellow</b> University of Pennsylvania Advisor: <i>Dr. David Goldsby</i>	2022 – Present
<b>PhD Earth, Environmental and Planetary Sciences</b> Brown University Advisors: <i>Dr. Terry E. Tullis</i> and <i>Dr. Greg Hirth</i>	2022
<b>MSc Geological and Environmental Sciences</b> Ben-Gurion University, Israel Advisors: <i>Dr. Yossef H. Hatzor</i> and <i>Dr. Amir Sagy (Geological Survey of Israel)</i>	2014
<b>BSc Geological and Environmental Sciences</b> Ben-Gurion University, Israel	2012

## TEACHING EXPERIENCE

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<b>Teaching Assistant (PhD)   Structural Geology</b> Brown University	Spring 2018, 2019
<b>Teaching Assistant   Introduction to Foundation Engineering</b> Shamoon College of Engineering	Fall 2015
<b>Teaching Assistant (MSc)   Reservoir Rock Mechanics</b> Ben-Gurion University	Spring 2014
<b>Teaching Assistant (MSc)   Introduction to Geomechanics</b> Ben-Gurion University	Fall 2012, 2013
<b>Teaching Assistant (MSc)   Rock Tunneling</b> Ben-Gurion University	Fall 2012, 2013

## AWARDS AND FELLOWSHIPS

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<b>First-Year Fellowship   Brown University</b>	AY 2016–17
<b>MSc Excellence Fellowship   Ben-Gurion University</b>	AY 2012–13
<b>Department Chair Award   Ben-Gurion University</b>	2012
<b>Department Chair Award   Ben-Gurion University</b>	2010

## PUBLICATIONS

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1. **Badt, N. Z.**, Goldsby, D. L. (2024). Intra-crystal viscoelasticity by nanoindentation. *In preparation*
2. Bhattacharya, P., Tullis, T. E., Rubin, A. M., Beeler, N. M. and **Badt, N. Z.** (2024). Evolution of frictional state involves changes in contact strength. *In preparation*
3. **Badt, N. Z.**, Goldsby, D. L. and Pharr, G. M. (2024). Frictional aging of single-asperity nanoindentation contacts in quartz and calcite. *in press*
4. **Badt, N. Z.**, Huber, C., Hirth, G. and Tullis, T. E. (2023). The pressure- and temperature-dependence of thermal pressurization in localized faults. *Journal of Geophysical Research: Solid Earth*, e2023JB026558. <https://doi.org/10.1029/2023JB026558>
5. **Badt, N. Z.**, Tullis, T. E., Hirth, G. and Goldsby, D. L. (2020). Thermal pressurization weakening in laboratory experiments. *Journal of Geophysical Research: Solid Earth*, 125(5), e2019JB018872. <https://doi.org/10.1029/2019JB018872>
6. **Badt, N.**, Hatzor, Y. H., Toussaint, R. and Sagy, A. (2016). Geometrical evolution of interlocked rough slip surfaces: The role of normal stress. *Earth and Planetary Science Letters*, 443, 153–161. <https://doi.org/10.1016/j.epsl.2016.03.026>

## SELECTED PRESENTATIONS

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Hebrew University of Jerusalem ( <b>invited</b> )	2023
Tel-Aviv University ( <b>invited</b> )	
Weizmann Institute of Science ( <b>invited</b> )	
AGU Fall Meeting ( <b>oral</b> )	2022
Southern California Earthquake Center Annual Meeting ( <b>poster</b> )	
University of California, Santa Cruz ( <b>invited</b> )	
AGU Fall Meeting ( <b>poster</b> )	2021
University of Pennsylvania ( <b>invited</b> )	
AGU Fall Meeting ( <b>poster</b> )	2020
Southern California Earthquake Center: Fault Friction Workshop ( <b>invited</b> )	
AGU Fall Meeting ( <b>oral</b> )	2019
Southern California Earthquake Center Annual Meeting ( <b>poster</b> )	
AGU Fall Meeting ( <b>poster</b> )	2018
Southern California Earthquake Center Annual Meeting ( <b>poster</b> )	

AGU Fall Meeting (**oral**)  
Southern California Earthquake Center Annual Meeting (**poster**)

2017

## MENTORING

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<b>Sunme Zhao</b>   <i>University of Pennsylvania</i>	2022–23
<b>Hannah Tebbens</b>   <i>University of Pennsylvania (visiting student)</i>	Summer 2022
<b>Jessica Wen</b>   <i>University of Pennsylvania (visiting student)</i>	Summer 2022
<b>Ryan Finlay</b>   <i>Brown University</i>	2019–20

## OTHER ACADEMIC AND NONACADEMIC ROLES

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<b>Reviewer</b>   <i>Tectonophysics, Seismica</i>	2023
<b>Graduate student faculty representative</b>   <i>Brown University</i>	2020–21
<b>Research assistant</b>   <i>Arava and Dead Sea Science Center</i>	2015–16
<b>Staff geologist</b>   <i>Geo-Log Geotechnical Services Inc.</i>	2014–15
<b>Undergraduate research assistant</b>   <i>Ben-Gurion University</i>	2011–12