Stefano Nerozzi

Institute for Geophysics, Jackson School of Geosciences, The University of Texas at Austin
10100 Burnet Rd., J.J. Pickle Research Campus, Bldg. 196, Room 2.246, Austin, TX 78758
Phone: (737) 247-9460 E-mail: stefano.nerozzi@utexas.edu Website: www.nerozzi.science

Education:

University of Texas at Austin, TX, USA — Aug 2014 – May 2019 (expected)
PhD Candidate, Geological Sciences, Advisor: Dr. John Holt
GPA: 4.00/4.00

University of Bologna, Italy — Oct 2011 – Mar 2014
M.Sc. Geology and Land Management, Advisors: Dr. John Holt, Dr. Alessandro Amorosi
GPA: 3.93/4.00, Final grade: 110/110 cum laude

University of Bologna, Italy — Oct 2008 – Oct 2011
B.S. Geological Sciences, Advisor: Dr. Francesco Mulargia
GPA: 3.89/4.00, Final grade: 110/110 cum laude

Current research work and interests:

Nerozzi's current research focuses on constraining which driving forces and surface processes are responsible for the initial emplacement of the north polar cap of Mars in the Late Amazonian. His work includes stratigraphy and morphology mapping via orbital radar and high-resolution imagery, and climate modeling with general circulation models. Broader research interests include near-surface geologic characterization via remote sensing and in-situ geophysical surveys, including design of ad-hoc instrumentation for in-situ long term monitoring.

Academic and research work experience:

Graduate Research Assistant, Institute for Geophysics — Sep 2015 – present
Teaching Assistant, Jackson School of Geosciences — Sep 2016 – May 2017
Lab Assistant I, Institute for Geophysics — Jun 2013 – Nov 2013
Undergraduate Research Assistant, Institute for Geophysics — Sep 2012 – May 2013

Publications:

Nerozzi, S., and Holt, J.W., *in prep.*, Mapping the extent, morphology, and internal stratigraphy of the north polar basal unit on Mars, JGR.

Ojha, L., **Nerozzi, S.**, Lewis, K., *submitted*, Compositional Constraints on the North Polar Cap of Mars, GRL.

Nerozzi, S., and Holt, J.W., *submitted*, Buried ice and sand caps at the north pole of Mars: revealing a record of climate change in the cavi unit with SHARAD, GRL.

Nerozzi, S., and Holt, J.W., 2018, Earliest Accumulation History of the North Polar Layered Deposits, Mars from SHARAD, Icarus. doi:10.1016/j.icarus.2017.05.027

Guallini, L., and **Nerozzi, S.**, 2014, Polar Layered Deposits, *in* Encyclopedia of Planetary Landforms, Springer New York, p. 1–14.

First Author Oral Presentations:

Nerozzi, S., and Holt, J.W., 2018, Revealing the History of Polar Ice Caps within the Planum Boreum Cavi Unit with SHARAD, *in* 2018 Late Mars Workshop, LPI Contrib. 2088, #5008.

Nerozzi, S., and Holt, J.W., 2018, The Ice and Sand Caps at the North Pole of Mars: Discovering a "Lost" Record of Climate Changes, *in* 2018 Mars Workshop on Amazonian Climate, LPI Contrib. 2086, #4022.

Nerozzi, S., and Holt, J.W., 2018, Ice caps under sand caps under an ice cap: revealing a record of climate change on Mars with SHARAD, *in* 49th Lunar and Planetary Science Conference, Abstract #1075.

Nerozzi, S., and Holt, J.W., 2017, Newly Mapped Extent, Morphology, and Internal Stratigraphy of the Martian North Polar Cavi Unit, *in* 48th Lunar and Planetary Science Conference, Abstract # 1722.

Nerozzi, S., and Holt, J.W., 2016, Stratigraphic Reconstruction of the Cavi Unit-NPLD Transition with SHARAD, *in* The 6th International Conference on Mars Polar Science and Exploration, Abstract # 6080.

Nerozzi, S., and Holt, J.W., 2016, Reconstructing the Initial Emplacement of the North Polar Layered Deposits, Mars with SHARAD, *in* 47th Lunar and Planetary Science Conference, Abstract # 2265.

Nerozzi, S., and Holt, J.W., 2015, Stratigraphic Structures and Depositional Patterns of the Lowermost NPLD, Mars, from SHARAD Mapping, *in* 46th Lunar and Planetary Science Conference, Abstract # 1670.

Awards:

Mars Student Travel Grant, Mars Exploration Program	Aug 2018
Mars Student Travel Grant, Mars Exploration Program	Apr 2018
Graduate School Summer 2018 Fellowship, University of Texas at Austin	2018
Endowed Presidential Scholarship, University of Texas at Austin	2017
Global Research Fellowship, University of Texas at Austin	2016
Travel grant for 6th Mars Polar Science Conference, European Geosciences Union (EGU)	2016
Jackson School of Geosciences Fellowship, University of Texas at Austin	2014
Outstanding Student Poster Award, European Geosciences Union (EGU)	2014
TASSEP scholarship, University of Bologna	2012
Certificate of Merit, Prof. Ivano Dionigi, Chancellor of the University of Bologna	2012
Certificate of Merit, Prof. Ivano Dionigi, Chancellor of the University of Bologna	2010

Field experience:

TDEM and GPR soundings on debris covered glacier, Absaroka Range, Wyoming	2015
TDEM soundings on debris covered glacier, Wrangell-St. Elias Mtns., Alaska	2014
GPR and LIDAR surveys on debris covered glacier, Uinta Mtns., Utah	2013
Carbonate sequence stratigraphy, Guadalupe Mtns., Texas and New Mexico	2013
ER, FDEM, GPR, and gravimetric surveys on karst area, Austin, Texas	2012

Carbonate stratigraphy and geological mapping, Western Sicily, Italy 2012
Rock mechanics, stratigraphic logging and geological mapping, Central Alps, Italy 2011
Seabed bathymetry, navigation planning, R/V Maria Grazia, Southern Adriatic Sea, Italy 2011
Stratigraphic logging and geological mapping, Central Alps, Italy 2010

Mentoring:

Honors B.S. thesis December 2017 - present
Michael Christoffersen, thesis title: *Applying a Mass Balance Approach to Constrain Ice Thickness of Hubbard Glacier*

Outreach activities:

Research Project Mentor Oct 2016 – April 2017
AP Research project by H. Kansara at Carnegie Vanguard High School, Houston, TX. Research topic: *How Would Terraforming Mars Question Society's Morals according to the Utilitarian Approach?*

Leadership:

UT Amateur Radio Club - President Jan 2018 – present
Manage club activities and meetings, teach licensing classes, define club goals, recruiting, and treasury. Club member since Jan 2015, officer since Sep 2016.