# EIRINI-MARIA POULAKI

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#### **EDUCATION**

#### The University of Texas at Austin

09/18 – expected 2022

Ph.D. Candidate in Geological Sciences, Jackson School of Geosciences

Dissertation: Tracing Mediterranean-style subduction zone evolution from deposition to exhumation using multimineral geochronology (Dr. Daniel Stockli)

# The University of Texas at Austin

09/16 - 08/18

Master's in Geological Sciences, Jackson School of Geosciences

Thesis: Zircon U-Pb Chronostratigraphy and Provenance of the Cycladic Basement and CBU on Sikinos and Ios Islands, Greece (Dr. Daniel Stockli) GPA:3.78/4.0

# National and Kapodistrian University of Athens, Greece

09/11 -06/15

Bachelor in Geology and Geoenviroment

Bachelor Thesis: Tectonometamorphic evolution of the Makrotantalon unit at the NW Andros northern Cyclades, Greece (Dr. Konstantinos Soukis) Cumulative GPA: 8.6/10-Top of Geology class

#### PROFESSIONAL EXPERIENCE

# **Graduate Research Assistant – The University of Texas at Austin**

2016-Present

- Mineral separation and geochronologic work for contract work in UTChron laboratories.
- Mentor and train new graduate and undergraduate students on laboratories work-flow and equipment operation.

# PhD research: Graduate Research Assistant – The University of Texas at Austin

2018- expected 2022

 Geochronologic and geochemical analyses on zircon, apatite, and rutile, including U-Pb and trace elements splitstream analyses as well as 2D elemental mapping techniques.

# Masters research: Graduate Research Assistant – The University of Texas at Austin

2016-2018

Zircon U-Pb and U-Th He geo-thermochologic techniques

# Geology Intern-Institute of Geology and Mineral Exploration, Athens, Greece

01/16 - 06/16

Determination of clays properties. Evaluation of mineralogical composition of altered volcanoclastic samples with the EVA® software provided by Bruker. Separation of the clay fraction of the above samples by settling. Saturation of the clay fraction with various cations (Li, Na, K). Use of portable IR (TerraSpec spectrometer) for mineral identification

#### **TEACHING EXPERIENCE**

# **Teacher Assistant-The University of Texas at Austin**

**Spring 2020** 

Introduction to Field Methods and Statistics, UT Austin, Instructors: Mark Helper, Brian Horton

- Prepared and led hands-on laboratories every week for ten undergraduate students.
- Assisted instructors to transition to online teaching during COVID-19, prepare online labs and final exam.

# **Teacher Assistant-The University of Texas at Austin**

Spring 2019

Introduction to Field Methods and Statistics, UT Austin, Instructors: Mark Helper, Daniel Stockli, Brian Horton, Zachary Sickmann)

Prepared and led hands-on laboratories every week for ten undergraduate students

# **Teacher Assistant-National and Kapodistrian University of Athens (Undergraduate)**

**Spring 2015** 

Introduction to Geology and Microtectonics, Instructor: Konstantinos Soukis

Supervise and assist hands-on laboratories every week for 20 undergraduate students.

**Poulaki, E. M.,** Stockli, D. F., Flansburg, M. E., & Soukis, K. (2019). Zircon U-Pb Chronostratigraphy and Provenance of the Cycladic Blueschist Unit and the Nature of the Contact with the Cycladic Basement on Sikinos and Ios Islands, Greece

Flansburg, M. E., Stockli, D. F., **Poulaki, E. M.,** & Soukis, K. (2019). Tectono-Magmatic and Stratigraphic Evolution of the Cycladic Basement, Ios Island, Greece. Tectonics.

In preparation: **Eirini Maria Poulaki,** Daniel F. Stockli, Megan Flansburg, Konstantinos Soukis, Michelle L. Gevedon, Lisa Stockli, Jaime Barnes. Zircon grains as a recorder of subduction and exhumation processes, Sikinos and Ios Islands (Cyclades, Greece)

In preparation: Megan Flansburg, **Eirini Maria Poulaki**, Daniel F. Stockli, Konstantinos Soukis. Coeval Miocene exhumation of the Cycladic Blueschist Unit and the Cycladic Basement in the lower-plate of the Ios-Sikinos metamorphic core complex, southern Cyclades, Greece

# **SHORT COURSES**

# University Center of Svalbard, Summer course in Arctic Tectonics and Volcanism

06/19 - 07/19

Geological history of the Arctic region. Project: Paleocurrent, stratigraphic analyses and the Detrital Zircon record of the Devonian strata in the Arctic region

#### CERTIFICATIONS

#### **Teaching Preparation Certificate**

Spring 2020

# HONORS AND AWARDS

<ul> <li>Outstanding Teaching Graduate Assistant award (nominated by Dr. Mark Helper)</li> </ul>	Sprint 2020
■ PhD student grant for the workshop Alboran Domain and Gibraltar Arc	Fall 2019
<ul> <li>Off Campus Research Grant</li> </ul>	2019, 2017
<ul> <li>Jackson School of Geosciences Grant Matching Program</li> </ul>	2019
■ GSA research grant	2019, 2017
■ First student in Geology and Geoenviroment to graduate in class 2011	2015

# PUBLIC OUTREACH AND VOLUNTEER WORK

#### Co-Coordinator, Lithosphere and Deep Earth Seminar (University of Texas at Austin)

2019-2020

Organized and promoted weekly geoscience seminars

# Co-Coordinator of the GeoFORCE Graduate Student Mentoring Program

2017 - 2019

Assigned graduate student mentors to undergraduate mentees and personally mentored an undergraduate student

#### North American Laser Ablation Workshop, Volunteer

05/19

North American Laser Ablation Conference planning committee

# Thinkery21 Adult Science Outreach Events, Volunteer

12/16

# Petrology and Mineralogy museum, Athens, Volunteer

12/14, 12/15

Responsible for children's activities and small tours for 6 Sundays/year

# POSTER (\*) AND ORAL (\*\*) PRESENTATIONS

# \*116th Annual GSA Cordilleran Section Meeting –

2020

Levang, Devin, Anfinson, Owen, Odlum, Margaret, Finley, Jake M., Poulaki, Eirini M., Gaina, Carmen, Stockli,

Updated 05/2020 Eirini Maria Poulaki

Daniel F., Shephard, Grace and Pavlovskaia, Elena "EARLY TO MIDDLE DEVONIAN PALEOGEOGRAPHIC LOCATION OF SVALBARD, NORWAY"

# \*116th Annual GSA Cordilleran Section Meeting -

Finley, Jake M., Anfinson, Owen, Odlum, Margaret, Levang, Devin, Poulaki, Eirini M., Gaina, Carmen, Stockli, Daniel F., Shephard, Grace and Pavlovskaia, Elena "LATE DEVONIAN SEDIMENT PROVENANCE OF THE ANDRÉE LAND BASIN, SVALBARD, NORWAY"

# \*\*Invited Presentation-National and Kapodistrian University of Athens Poulaki E. M, Flansburg, Stockli D., Soukis K.; "The tectonometamorphic evolution of the Southern Cyclades"

01/20

10/19

\*\*Workshop Alboran Domain and Gibraltar Arc: Geological Research and Natural Hazards

Poulaki E., Stockli D "Unraveling the tectonometamorphic evolution of the Nevado Filabride Unit using zircon U-Pb depth profile and 2-D mapping geochronology"

\*Chapman Conference on Large-scale Volcanism in the Arctic: The Role of the Mantle and Tectonics 10/19 Odlum M., Anfinson O., Poulaki E., Shephard G., Stockli D., Gaina D. "Thermal record of deformation, exhumation, and fluid-rock interactions along the Billefjorden Fault Zone, Pyramiden, Svalbard"

# \* North American Laser Ablation Workshop

05/19

Poulaki E., Stockli D., Stockli L., Flansburg M., "Split-Stream and 2D mapping U-Pb and trace elements depth profiling"

# \*\* North American Laser Ablation Workshop

Odlum M., Poulaki E., Flansburg M., Stockli D., "Dating exhumation and fluid-rock interactions in fault systems using apatite U-Pb and trace element LA-ICP-MS analysis."

# \*EGU Spring meeting in Vienna, Austria

04/19

Poulaki E., Stockli D, Flansburg M, Soukis K; "Tectonic evolution of the CBU and CB with multiple geo-thermo chronometers"

# \*AGU Fall Meeting, in New Orleans, Louisiana

12/17

Poulaki E. M, Stockli D., Flansburg, Soukis K.; "Unravelling the Formation and Exhumation of The Cycladic Blueschist Unit and Basement in the Southern Aegean, Sikinos Island, Greece."

# \*AGU Fall Meeting, in New Orleans, Louisiana

12/17

Flansburg M., Stockli D., Poulaki E. M, Soukis K.; "Geo-Thermochronometric Insights on the Cycladic Basement and Cycladic Blueschist Unit Contact in the Southern Cyclades, Ios Island, Greece."

# \*GSA Annual Meeting in Seattle, Washington, USA

Poulaki E. M, Flansburg M., Stockli D., Soukis K.; "Zircon La-SS-ICP-MS U-Pb Analysis of the Petrogenesis, Chronostratigraphy, And Provenance of the Cycladic Blueschist Unit and Basement in the Southern Cyclades, Sikinos And Ios, Greece"

# \*GSA Annual Meeting in Seattle, Washington, USA

12/17

Flansburg M., Poulaki E. M, Stockli D., Soukis K.; "The Cycladic Basement and the Pre-Cenozoic Tectonic History of The Southern Cyclades, Ios Island, Greece."

# FIELD EXPERIENCE

**Southern Spain** 10/18 & 10/19 Ph.D. field work in the Internal Betic Cordillera Svalbard 06/19-07/19 Pyramiden field trip in Svalbard (3 days), three field trips in Svalbard for the graduate course 05/19 Participant in week-long field trip for UT graduate seminar led by Daniel Stockli with focus on inversion tectonics (Atlas/ Anti-Atlas) **Central Texas** 01/17-05/17 Field trips in central Texas as a Teacher Assistant for the class field and stratigraphic methods Llano 05/17

Three days field trip with GIS and GPS class

Oklahoma 05/16

Three days field trip with continental tectonics class

Sikinos and Ios Islands (Cyclades Greece)

06/16 & 06/17

Updated 05/2020 Eirini Maria Poulaki Master's field work **Tinos and Svros Islands (Cyclades Greece)** 05/15 Field assistant (structural geology and petrology) **Andros Island (Cyclades Greece)** 05/17 - 06/17Undergraduate field work, mapping, structural geology Santorini Island (Cyclades Greece) 05/13 & 06/14 3-days conference with field work on the island Peloponnese (Cyclades Greece) 06/14 10 days field camp **Central Greece, Peloponnese (Central Greece)** 05/11 - 06/15

# **SKILLS**

- Software: Python, ERSI ArcGIS, Eva, Adobe Illustrator, Iolite2, MATLAB, GPlates, Geomap App
- Field skills: Geology mapping, sample collection, use of geology compass: breithaupt, Brunton, portable IR (TerraSpec spectrometer), GPS
- Laboratory skils: viscosity meter and use of the spectrophotometer I.R., Karl Fischer titrator,
- XRF, XRD analyzer, polarized microscope
- Inductively Coupled Plasma Mass Spectrometry (ICP-MS solution and laser modes), zircon and apatite dissolution procedures
- Clean laboratory sample dissolution (flux fusion, parr-bomb, hot plate, sinter)

36 Field trips (1-3 days) in central Greece, Peloponnese for undergraduate courses

- Sample preparation (whole rock crushing, mineral separation for apatite, zircon, rutile)
- Languages: Greek (Native Language), English (Fluent)

#### **PROFESSIONAL SOCIETIES**

- Geological Society of America
- Mineralogical Society of America
- American Geophysical Union
- European Geological Union