Curriculum Vitae
Sokratis Xenos

Contact Information

September, 1995, Karditsa, Greece

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Education

École Polytechnique, Laboratoire de Mécanique des Solides (LMS) — Palaiseau, France
Joint PhD with University of Thessaly, Greece — *2019 - 2024*

- Field of Specialization: Computational Mechanics
- Thesis Advisors: Prof. Kostas Danas & Nikolaos Aravas

University of Thessaly, Department of Mechanical Engineering — Volos, Greece
5-Year Program Master in Engineering (MEng) - M2 Equivalent — *2013 - 2018*

- GPA: 9.03/10, 'Excellent' (With Honors)
- Field of Specialization: Computational Mechanics
- Thesis Advisor: Prof. Nikolaos Aravas
- Thesis: Computational Non-local Plasticity of Porous Metals

Academic Research & Working Experience

University of Thessaly, Department of Mechanical Engineering — Volos, Greece
Research Associate, Laboratory of Mechanics of Materials — *2019 - Present*

- **2023 - Present**: Hydrogen Storage and Carriage as Option for Renewable Energy Transition
- **2020 - 2023**: Toolkit for the design of damage tolerant microstructures

Metka, Mytilineos S.A. — Volos, Greece
Student Trainee — *July 2017 - August 2017*

Journal Publications

[1] Aravas N., **Xenos S.**, (2023). *"Implicit" vs "Explicit" gradient plasticity models: Do they always remove mesh dependence in softening materials?*, International Journal of Solids and Structures, 281, 112415

[2] **Xenos S.**, Aravas N., Danas, K. (2024). *A homogenization-based model of the Gurson type for porous metals comprising randomly oriented spheroidal voids*, European Journal of Mechanics - A/Solids, 105, 105238

Publications in Conference Proceedings

[1] **Xenos S.**, Danas K., Aravas N. (2022). *An isotropic elastic-plastic model for porous metals accounting for void shape effects*, 8th International Conference of the Hellenic Metallurgical Society, December 14-16, Patras, Greece

Awards, Grants & Honours

Research Assistantship from Laboratoire de Mécanique des Solides of École Polytechnique — *2020-2024*
École Polytechnique

Academic Scholarship for Doctoral Studies — *2019-2024*
School of Engineering, Department of Mechanical Engineering — University of Thessaly

Certificate for Excellent Academic Performance during Undergraduate Curriculum — *2018*
School of Engineering, Department of Mechanical Engineering — University of Thessaly

Technical Skills & Programming

Programming Languages:	Fortran 77/90/95, Mathematica, Matlab
Finite Element Simulations:	Abaqus Standard/Explicit, Abaqus CAE
CAD:	AutoCAD
Academic Writing & Typesetting:	LaTeX, Microsoft Office
Operating Systems:	Microsoft Windows, Linux (Ubuntu)

Research Interests

Continuum Mechanics, Computational Mechanics, Finite Element Analysis, Finite Element Method, Constitutive Modeling, Non-local Plasticity Theories

Teaching Experience

MM402: Mechanics of Materials I - Tutoring — *Spring 2021*
School of Engineering, Department of Mechanical Engineering — University of Thessaly

MM502: Mechanics of Materials II - Tutoring — *Fall 2020*
School of Engineering, Department of Mechanical Engineering — University of Thessaly

Thesis Mentoring

K. Naris - Undergraduate Student — *2022-2023*
An isotropic elastic-plastic model with hydrogen effects: Application to the problem of Mode-I fracture of a blunting crack — University of Thessaly

I. Siomadis - Undergraduate Student — *2021-2022*
Elastic Beam Analysis: Analytical and Numerical Solutions — University of Thessaly

A. Giotas - Undergraduate Student — *2020-2021*
Finite Element Analysis of the Automotive Crash Box Impact Test — University of Thessaly

Languages

Greek: Native Language

English: Full Professional Proficiency (C2 level)

Military Service

Hellenic Army, Special Forces Greece
Greek Marines, 32nd Support Battalion *February 2019-November 2019*