Curriculum Vitae

Personal information

Name:	Anastasios Tsiavos	
Current position:	Senior Researcher and Lecturer at ETH Zurich	
Date of birth:	13 July 1987	
Nationality:	Greek	
Residency:	Switzerland	
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Education

March 2017 — **PhD, Civil Engineering** — **ETH Zurich**

Thesis Title: New approaches for the performance-based design of conventional and seismically isolated structures
Thesis advisor: Prof. Dr. Bozidar Stojadinovic

September 2012 — **Master, Civil Engineering** — **ETH Zurich**

Major: Structural Engineering
Minor: Project management
Thesis advisor: Prof. Dr. Bozidar Stojadinovic

September 2010 — **Diploma, Civil Engineering** — **NTUA University, Athens**

Major: Structural Engineering
Thesis advisor: Prof. Dr. Charis Gantes

September 2005 — **High School Degree** — **Arsakio Ekalis, Athens**

Professional and academic experience

January 2020-today — **Senior Researcher and Lecturer**

Employer: ETH Zurich, Switzerland

July 2018-December 2019 — **Postdoctoral researcher**

Employer: University of Bristol, United Kingdom

Topic: Large-scale shaking table investigation of low-cost and sustainable seismic protection strategies

September 2017-June 2018 — **Structural/Earthquake Engineer**

Employer: Henauer Gugler AG, Switzerland

April 2017-	**Postdoctoral researcher**	
August 2017	Employer:	ETH Zurich, Switzerland
September 2012-	**PhD student**	
March 2017	Employer:	ETH Zurich, Switzerland

Teaching and mentorship activities

Spring Semester 2021	Independent teaching of the courses 'Seismic Design and Evaluation of Bridges' and 'Seismic Evaluation and Retrofitting of Existing Buildings' at ETH Zurich
Spring Semester 2020	Independent teaching of the courses 'Seismic Design I' and 'Seismic Evaluation and Retrofitting of Existing Structures' at ETH Zurich
Autumn Semester 2017	Co-teaching of the course 'Theory of Structures III' at ETH Zurich
2011-2015	Teaching assistantship in the courses 'Structural Dynamics and Vibration Problems' and 'Seismic Design I' at ETH
2012-2021	Supervision of 10 Master Semester Projects and 6 Master Theses at ETH Zurich

Funded research projects as Principal Investigator (PI)

Development of guidelines for the state-of-the-art dynamic Finite Element modelling of existing concrete gravity dams, Funding Source: Swiss Federal Office of Energy (SFOE)

Outreach and contribution to open science

September 2021-March 2022	Programme Coordinator and Main Lecturer of the new CAS (Certificate of Advanced Studies) Programme in Seismic Evaluation and Retrofitting at ETH Zurich: https://baug.ethz.ch/en/continuing-education/cas-seismic-evaluation.html

Prizes, fellowships, distinguished memberships

September 2019	Co-Editor in the Special Issue 'Novel Retrofit Approaches for the Seismic Upgrade of Existing Buildings and Bridges' of the Journal Frontiers in Built Environment
January 2019	Member of Earthquake Engineering Research Institute (EERI)
January 2013	Member of Swiss Society for Earthquake Engineering and Structural Dynamics (SGEB)
November 2012	SGEB Award 2012 for excellent Master thesis in ETH Zurich
September 2010	ETH Zurich Excellence Scholarship for outstanding performance
March 2007	NTUA Scholarship for the top student in Mathematics

Reviewer for International Journals

Earthquake Engineering and Structural Dynamics

Bulletin of Earthquake Engineering

Soil Dynamics and Earthquake Engineering

Languages

English (Level C2)	Certificate of proficiency in English by Cambridge University
German (Level C1)	Zertifikat C1, Goethe Institut

Journal Publications

[J10] Tsiavos A, Sextos A, Stavridis A, Dietz M, Dihoru L, Di Michele F, Nicholas A. Low-cost hybrid design of masonry structures for developing countries: shaking table tests, *Soil dynamics and Earthquake Engineering 2021*; 146:106675. DOI: https://doi.org/10.1016/j.soildyn.2021.106675

[J9] Tsiavos A, Sextos A, Stavridis A, Dietz M, Dihoru L, Alexander NA. Experimental investigation of a highly efficient, low-cost PVC-Rollers Sandwich (PVC-RS) seismic isolation, *Structures 2021*; 33:1590-1602.

[J8] Tsiavos A, Schlatter D, Markic T, Stojadinovic B. Shaking table investigation of inelastic deformation demand for a structure isolated using friction-pendulum sliding bearings. *Structures 2021*; 31, 1041-1052.

[J7] Tsiavos A, Sextos A, Stavridis A, Dietz M, Dihoru L, Alexander NA. Large-scale experimental investigation of a low-cost PVC 'sand-wich' (PVC-s) seismic isolation for developing countries, *Earthquake Spectra 2020*; 36(4): 1886–1911. DOI: https://doi.org/10.1177/8755293020935149

[J6] Tsiavos A, Haladij P, Sextos A, Alexander NA. Analytical investigation of the effect of a deformable sliding layer on the dynamic response of seismically isolated structures, *Structures 2020*; 27: 2426-2436. DOI: https://doi.org/10.1016/j.istruc.2020.08.016

[J5] Tsiavos A, Alexander NA, Diambra A, Ibraim E, Vardanega PJ, Gonzalez-Buelga A, Sextos A. A sand-rubber deformable granular layer as a low-cost seismic isolation strategy in developing countries: experimental investigation, *Soil Dynamics and Earthquake Engineering 2019*; 125: 105731. DOI: https://doi.org/10.1016/j.soildyn.2019.105731

[J4] Tsiavos A, Stojadinovic B. Constant yield displacement procedure for seismic evaluation of existing structures, *Bulletin of Earthquake Engineering 2018*; 17(4): 2137-2164. DOI: https://doi.org/10.1007/s10518-018-00532-w

[J3] Tsiavos A, Schlatter D, Markic T, Stojadinovic B. Experimental and analytical investigation of the inelastic behavior of structures isolated using friction pendulum bearings, *Procedia Engineering 2017*; 199: 465-470. DOI: https://doi.org/10.1016/j.proeng.2017.09.047

[J2] Tsiavos A, Mackie KR, Vassiliou MF, Stojadinovic B. Dynamics of Inelastic Base-Isolated Structures Subjected to Recorded Ground Motions, *Bulletin of Earthquake Engineering 2017*; 15(4): 1807-1830. DOI: https://doi.org/10.1007/s10518-016-0022-5

[J1] Vassiliou MF, Tsiavos A, Stojadinovic B. Dynamics of Inelastic Base Isolated Structures Subjected to Analytical Pulse Ground Motions, *Earthquake Engineering and Structural Dynamics 2013*; 42(14): 2043-2060. DOI: https://doi.org/10.1002/eqe.2311

Conference Publications

[C14] Tsiavos A, Markic T, Schlatter D, Stojadinovic B. Inelastic response modes of seismically isolated structures: Failure of the isolators or damage in the isolated structure? COMPDYN 2021, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Athens, Greece, 27–30 June 2021.

[C13] Tsiavos A, Alexander NA, Sextos A. Numerical investigation of the sliding response of flexible structures founded on a deformable granular layer, 2nd International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning, Bhaktapur, Nepal, April 2019.

[C12] Tsiavos A, Stojadinovic B. Evaluation of Shear Wall Structures Using a Constant Yield Displacement Procedure, Proceedings of the 11th American Conference on Earthquake Engineering, Los Angeles, USA, June 2018.

[C11] Bender N, Tsiavos A, Pilotto M, Stojadinovic B. Engineering Collapse-Probability-Based Seismic Retrofit Design for Existing Bridges, Proceedings of the 11th American Conference on Earthquake Engineering, Los Angeles, USA, June 2018.

[C10] Tsiavos A, Schlatter D, Stojadinovic B. Experimental Study on Seismically Isolated Structures: Can the Isolated Superstructure Yield? Proceedings of the 16th European Conference on Earthquake Engineering, Thessaloniki, Greece, June 2018.

[C9] Tsiavos A, Schlatter D, Markic T, Stojadinovic B. Experimental investigation of the inelastic behavior of structures isolated using friction pendulum bearings, 16th World Conference on Earthquake Engineering, Santiago, Chile, January 2017.

[C8] Tsiavos A, Stojadinovic B. Constant yield displacement approach for seismic design of structures, 16th World Conference on Earthquake Engineering, Santiago, Chile, January 2017.

[C7] Crettaz R, Tsiavos A, Stojadinovic B. Seismic isolation of historic towers: feasibility study on a simplified model of the Tower of Pisa, SAHC, Leuven, September 2016.

[C6] Tsiavos A, Stojadinovic B. A probabilistic approach towards and evaluation of existing code provisions for seismically isolated structures. ECCOMAS, Crete, June 2016.

[C5] Tsiavos A, Mackie K, Stojadinovic B. Ry-μ-Tn Beziehungen für seismisch isolierte Strukturen, DACH-Tagung, Zurich, August 2015.

[C4] Tsiavos A, Piskas D, Theodoridou S, Martakis P, Camathias U, Stojadinovic B. Small-scale steel frames developed for earthquake engineering education purposes, Second European Conference on Earthquake Engineering and Seismology, Istanbul, August 2014.

[C3] Tsiavos A, Mackie K, and Stojadinovic B. Dynamics of inelastic base-isolated bridges subjected to analytical pulse ground motions, 10NCEE, Alaska, July 2014.

[C2] Tsiavos A, Vassiliou M, Mackie K, Stojadinovic B. Comparison of the inelastic response of base-isolated structures to near-fault and far-fault ground motions, VEESD, Vienna, August 2013.

[C1] Tsiavos A, Vassiliou M, Mackie K, Stojadinovic B. Ry-μ-Tn relations for seismically isolated structures, COMPDYN, Kos, June 2013.

Supervision of Master Projects

[P10] Remo Hüsser-Raphael Arnold, Performance-based seismic design of a new structure, Autumn 2020.

[P9] Andrea Stadelmann, Effect of Long-Term Material Deterioration on Seismic Performance of Existing Bridge Structures, Autumn 2020.

[P8] Konstantinos Leontaris, Effect of Reinforcement Lap Splicing on the Seismic Compliance factor of Reinforced Concrete Moment-Resisting Frames, Spring 2020.

[P7] Lars Hellmüller, Calibration of Seismic Compliance Factors for Existing Building Structures, Autumn 2016.

[P6] Tomislav Markic, Modelling of a yielding seismically isolated structure, Autumn 2014.

[P5] Panagiotis Martakis, Development of instructional models of seismically isolated structures with flexible bearings, Spring 2014.

[P4] Panagiotis Firtinidis, Development of sliding response spectra for simple dynamic systems, Spring 2014.

[P3] Fabienne Zimmermann, Patrick Schönenberger, Seismic performance evaluation of a masonry building structure, Autumn 2013.

[P2] Davide Cola, Design of a seismically isolated building in Switzerland, Autumn 2013.

[P1] Christian Vögeli, Arno Barandun, Seismic behavior of unreinforced masonry walls with soft-layer strip bearings, Autumn 2012.

Supervision of Master Theses

[M6] Remo Hüsser, Investigation of an energy efficient and low-carbon-emission strategy for seismic retrofitting of an existing masonry building, Spring 2021.

[M5] Miguel Figueiredo Nunes, Experimental determination of the robustness of seismically isolated structures, Spring 2021.

[M4] Pascal Amrein, Influence of Strength Compliance on the Probability of Collapse of an Existing RC Frame Building, Autumn 2020.

[M3] Kleio Sampatakaki, Seismic Evaluation of existing structures using constant-yield-displacement-equivalent systems, Spring 2018 (Awarded the SGEB Master Preis 2018).

[M2] Nathan Bender, Compliance factors for existing structures: calibration and evaluation, Spring 2017.

[M1] David Schlatter, Experimental Investigation of a Yielding Seismically Isolated Structure, Spring 2016 (Awarded the SGEB Master Preis 2016).

Selected design and consulting projects

[PR6] Seismic evaluation of a three-storey masonry building in Zurich, Switzerland

[PR5] Seismic evaluation of the renovation of a four-storey masonry building in Zurich, Switzerland

[PR4] Seismic evaluation of a four-storey reinforced concrete building in Zurich, Switzerland

[PR3] Assessment of the fire safety of a six-storey reinforced concrete building in Zurich, Switzerland

[PR2] Design of a four-storey reinforced concrete building in Zurich, Switzerland

[PR1] Design of a reinforced concrete emergency shelter in Zuchwil, Switzerland