Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Fabio Rollo**
Address(es)	
Telephone(s)	Mobile:
E-mail	
Nationality	
Date of birth	
Gender	

Desired employment / Occupational field

Geotechnical engineer

Work experience

Dates	01/06/2019 – 31/05/2020
Occupation or position held Main activities and responsibilities	Research fellow Research activity: "Thermodynamic-based constitutive modelling of soils: from mathematical formulation to the analysis of slopes in seismic areas"
Name and address of employer	Department of Structural and Geotechnical Engineering – Sapienza University of Rome
Type of business or sector	Research activity – Scientific Coordinators: Prof. Ing. Angelo Amorosi, Sebastiano Rampello
Dates	01/06/2018 – 30/09/2018
Occupation or position held	Collaboration for research activity
Main activities and responsibilities	Research activity: "Evaluation of triggering instability in slopes characterised by cohesionless soils under seismic conditions"
Name and address of employer	Department of Structural and Geotechnical Engineering – Sapienza University of Rome
Type of business or sector	Research activity – project Reluis 2018 – Scientific Coordinator: Prof. Ing. Sebastiano Rampello
Dates	01/08/2017 – 31/12/2017
Occupation or position held	Scholarship for research activity
Main activities and responsibilities	Research activity: "Stability analyses of ideal slopes in cohesionless soils under static and dynamic conditions through an advanced constitutive model"
Name and address of employer	Department of Structural and Geotechnical Engineering – Sapienza University of Rome
Type of business or sector	Research activity – project Reluis 2017 – Scientific Coordinator Prof. Ing. Sebastiano Rampello
Dates	01/10/2016 – 30/11/2016
Occupation or position held	Scholarship for research activity
Main activities and responsibilities	Research activity: "Analyses of the monotonic and cyclic response of an advanced constitutive model for cohesionless soils able to reproduce cyclic mobility"
Name and address of employer	Department of Structural and Geotechnical Engineering – Sapienza University of Rome

Type of business or sector	Research activity – project Reluis 2016 – Scientific Coordinator: Prof. Ing. Angelo Amorosi
Dates	07/10/2015 – 09/10/2015
Occupation or position held	Collaboration for teaching activity
Main activities and responsibilities	Course on “Soil – structure interaction”
Name and address of employer	CISM – International Centre of Mechanical Science – Palazzo del Torso, Piazza Garibaldi 18 – 33100 Udine (Italy)
Type of business or sector	Teaching collaborator
Dates	01/03/2015 – 31/12/2015
Occupation or position held	Collaboration for research activity
Main activities and responsibilities	Definition of impedance matrix for foundation systems: implementation in automatic codes and validation
Name and address of employer	Department of Structural and Geotechnical Engineering – Sapienza University of Rome
Type of business or sector	Collaboration for research activity under the direction of Prof. Alberto Burghignoli

Education and training

Dates	11/2015 – 02/2019
Title of qualification awarded	Doctor of Philosophy in Structural and Geotechnical Engineering
Principal subjects/occupational skills covered	Title of the thesis: “Elastic anisotropy and elastoplastic coupling of soils: a thermodynamic approach”
Name and type of organisation providing education and training	Department of Structural and Geotechnical Engineering – Sapienza University of Rome Supervisor: Prof. Ing. Angelo Amorosi
Level in national or international classification	Doctoral degree in Structural and Geotechnical Engineering Final degree mark: Ottimo con lode – Excellent (cum laude) Date of dissertation: 26/02/2019
Dates	06/10/2015
Title of qualification awarded	Professional qualification in Civil Engineering
Name and type of organisation providing education and training	Sapienza University of Rome – Faculty of Civil Engineering
Dates	11/2011 – 01/2015
Title of qualification awarded	Master’s degree in Civil Engineering (Geotechnical Engineering) Final degree mark: 110/110 cum laude - Date: 28/01/2015
Principal subjects/occupational skills covered	Title of the thesis: “Geotechnical design of shaft foundations” – Supervisor: Prof. Alberto Burghignoli Type of thesis: Theoretical/experimental
Name and type of organisation providing education and training	Sapienza University of Rome – Faculty of Civil Engineering
Dates	11/2008 – 12/2011
Title of qualification awarded	Bachelor’s degree in Civil Engineering
Principal subjects/occupational skills covered	Final degree mark: 108/110 - Date: 20/12/2011
Name and type of organisation providing education and training	Sapienza University of Rome – Faculty of Civil Engineering
Dates	2003 - 2008
Title of qualification awarded	Scientific certificate – School leaving examination mark: 98/100

Principal subjects/occupational skills covered	Double language studies (English and French)
Name and type of organisation providing education and training	Liceo Scientifico Statale “John Fitzgerald Kennedy”, via Nicola Fabrizi, Roma, Italy

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	B2	independent	B2	independent	B2	independent	B2	independent	B2	independent
French	B2	independent	B2	independent	B2	independent	B2	independent	B2	independent

(*) Common European Framework of Reference for Languages

Technical skills and competences

Research interests: constitutive modelling of soils and rocks in the framework of multi-surface hardening plasticity; application of thermodynamic principles to the modelling of anisotropy and elastoplastic coupling of soils. Soil-structure interaction related problems; Finite Element analyses of geotechnical boundary value problems: seismic site effects, seismic behaviour of natural slopes, liquefaction, rock blocks stability analyses, earth dams, seismic hazard

Computer skills and competences

Microsoft Office (Excel, Word, PowerPoint)
Languages Matlab, Fortran
FEM codes: Plaxis 2D-3D, Geo-studio package, SAP2000, Abaqus
CAD instruments (Autocad)
Grapher, Surfer

Courses and conferences

Attended the Alert Geomaterials workshop 2019 held in Aussois (France) from 30 September to 02 October 2019.

Attended the XXIV Congresso AIMETA 2019, held in Roma from 15 to 19 September 2019 –, Sapienza Università di Roma, Italy.

Attended the VII Convegno Nazionale dei Ricercatori di Ingegneria Geotecnica (CNRIG 2019), held in Lecco from 03 to 05 July 2019 – Lecco, Politecnico di Milano, Italy.

Attended the 7th International Conference on Earthquake Geotechnical Engineering (7ICEGE) held in Rome from 17 to 20 June 2019 - Rome, Italy.

Attended the Incontro Annuale dei Ricercatori di Geotecnica (IARG) – Genova (Italy) from 04 to 06 July 2018

Attended the NUMGE 2018 – the 9th European Conference on Numerical Methods in Geotechnical Engineering, held at the faculty of Engineering of the University of Porto (Portugal), 25 to 27 June 2018

Attended the Symposium on micro to MACRO mathematical modelling in soil mechanics held in Reggio Calabria (Italy) from May 29 to June 1, 2018

Attended the 28th Alert Workshop on Geomaterials - CNRS Aussois (France) from October 2nd to 4th, 2017

Attended the Incontro Annuale dei Ricercatori di Geotecnica (IARG) – Matera (Italy) from 05 to 07 July 2017

Attended the ALERT Olek Zienkiewicz Doctoral School on “Geotechnics of Soft and Organic Soils” –

Assisi (Italy) from 26 to 30 June 2017 organised by C. Jommy and C. Tamagnini – 36 hours

Attended the 26th Convegno Nazionale di Geotecnica (CNG) – Roma from 20 to 22 June 2017 organised by the Associazione Geotecnica Italiana (AGI) – 18 hours

Attended the 27th ALERT Doctoral School 2016 on "Modelling of instabilities and bifurcation in Geomechanics" – CNRS Aussois (France) from 06 to 08 October 2016

Attended the VI Convegno Nazionale dei Ricercatori di Ingegneria Geotecnica, CNRIG 2016 – Alma Mater Studiorum, University of Bologna - 22 - 23 September 2016

Attended the Summer School 2016 – "Sperimentazione e modellazione del comportamento idro-meccanico delle interfacce" – Alma Mater Studiorum – University of Bologna – 20 - 21 September 2016

Attended the IV International Workshop on "Modern Trends in Geomechanics" organised by the organizing committee of IW-MTG4 in Assisi (Italy) from 16 to 18 May 2016.

Attended the course "Introduction to continuum thermomechanics" performed by Prof. Davide Bernardini, University of Rome "La Sapienza" - Dept. of Structural and Geotechnical Engineering – from 09/03/2016 to 04/05/2016 – 27 hours

Attended the "3XV" Geotechnical International Workshop - University of Naples "Federico II" – 29/02-02/03/2016.

Attended the course of "Piles foundations: knowledge, applications and perspectives" performed by Prof. Alessandro Mandolini, 2nd University of Naples – Dept. of Structural and Geotechnical Engineering, University "La Sapienza" of Rome – 11-13 January 2016 – 18 hours

Attended the course of "Numerical implementation of inelastic constitutive equations" performed by Prof. Claudio Tamagnini, University of Perugia
20 and 27 November 2015- Dept. fo Structural and Geotechnical Engineering, University "La Sapienza" of Rome – 8 hours

Publications

Amorosi A., Boldini D., di Lernia A., Rollo F, (2016) Three-dimensional advanced numerical approaches to the seismic soil and structural response analyses, in: *Archaeology, Cryptoportici, Hypogea, Geology, Geotechnics, Geophysics, L'Aquila, DISS_Edition*, 2016, pp. 299 - 316 ISBN:978-88-940114-2-5

Amorosi A., Rollo F., Boldini, D., di Lernia A, (2017) Previsione del comportamento ciclico di sabbie alle piccole, medie e grandi deformazioni mediante un modello bounding surface, in: *La Geotecnica nella Conservazione e Tutela del Patrimonio Costruito*, Roma, Associazione Geotecnica Italiana, 2017, 2, pp. 403 - 411 ISBN:978 88 97517 09 2

Amorosi A., Rollo F., Boldini D., di Lernia A, (2017) Analisi della risposta ciclica di terreni granulari attraverso un modello bounding surface, in: *Incontro Annuale dei Ricercatori di Geotecnica* – IARG 2017, 2017, pp. 1 - 6 ISBN: 978-88-99432-30-0

Amorosi A., Rollo F., Boldini D., (2018) A modified bounding surface plasticity model for sand, in: *Numerical Methods in Geotechnical Engineering IX*, London, Taylor & Francis Group, 2018, 1, pp. 213 – 220 ISBN: 978-1-138-33198-3

Rollo F., Amorosi A. (2018) Un modello iperelastico non lineare anisotropo per lo studio della risposta reversibile dei terreni, in: *Incontro Annuale dei Ricercatori di Geotecnica* – IARG 2018, pp. 1 - 6 ISBN: 9788897517016

Amorosi A., Rollo F., Houlsby G.T., (2018) A nonlinear hyperelastic anisotropic model for soils, in: *Micro to MACRO Mathematical Modelling in Soil Mechanics, Trends in Mathematics* – pp. 11 - 22 ISBN: 978-3-319-99473-4

Amorosi A., Rollo F., Lilliu E., (2019) Seismic induced landslides in sand: a numerical approach, in: Silvestri & Moraci (Eds) *Earthquake Geotechnical Engineering for Protection and Development of Environment and Constructions* – Vol. 4, pp. 1114 - 1121 (7th ICEGE) ISBN: 978-0-367-14328-2.

Houlsby, G. T., Amorosi, A., & Rollo, F. (2019). Non-linear anisotropic hyperelasticity for granular materials. *Computers and Geotechnics*, 115, 103167. https://doi.org/10.1016/j.compgeo.2019.103167

Amorosi A., Rollo F., Gagliardini L. (2020). The Analysis of Weak Rock Block Behaviour by an Advanced Constitutive Model. In: *Geotechnical Research for Land Protection and Development*. CNRIG 2019. Lecture Notes in Civil Engineering, vol 40, pp. 611-620. Springer, Cham. https://doi.org/10.1007/978-3-030-21359-6_65.

Amorosi, A., Rollo, F. & Houlsby, G.T. (2020). A nonlinear anisotropic hyperelastic formulation for granular materials: comparison with existing models and validation. *Acta Geotech*. 15, 179-196. https://doi.org/10.1007/s11440-019-00827-5.

Dafalias, Y. F., Taiebat, M., Rollo, F., & Amorosi, A. (2020). Convergence of rotational hardening with bounds in clay plasticity. *Géotechnique Letters*, *10*(1), 16-19.. https://doi.org/10.1680/jgele.19.00012.

Amorosi, A., Rollo, F., & Dafalias, Y. F. (2020). Relating elastic and plastic fabric anisotropy of clays. *Géotechnique*, 1-11. https://doi.org/10.1680/jgeot.19.P.134

Other

2019-2020 – Reviewer for the international journal "Géotechnique Letters"

Member of the Order of Engineers of the district of Rome – category A – civil and environmental engineer – 09/11/2015

Rewarded as "Laureato Eccellente" for the faculty of Civil and Industrial Engineering – Academic year 2013-2014 in date 23/04/2015

Roma, 28/07/2020