

# **CURRICULUM VITAE**

**Prof. Ing. Daniele PEILA**

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**Date of Birth** 1 October, 1962  
**Nationality** Italian  
**Degree** Degree in Mining Engineering, 1987 (*cum laude*) - Politecnico di Torino  
Italian Chartered Engineering, Vercelli section (1988 – present)  
Italian Chartered Journalist (2007-present)

## **Present roles**

Professor of “Tunnelling” & Director of the Master Course: “Tunnelling and Tunnel Boring Machines” - Politecnico di Torino (2005-present)  
Head of the laboratory: “Tunnelling and Underground Space” - Politecnico di Torino (2006-present)  
Head of the laboratory: “Rock fall protection” - Politecnico di Torino (2017-present)  
Research fellow of the Italian National Research Council (CNR) (1990 –present)

## **Previous positions**

Research assistant at the Politecnico di Torino (1989-2004)  
Technical engineer at Rodio S.p.A. (Ground reinforcing company) (1987-1988) and at Follioley S.p.A. (General Construction company) (1988-1989)

## **Technical and research fields**

Tunnelling both conventional and mechanized (EPB tunnelling and soil conditioning, soil and rock improvement)  
Surface and underground mining  
Rockfall protection techniques

## **Laboratory activities**

Soil conditioning assessment for EPB tunnelling (metro tunnels of Rome, Milan, Turin, Catania, Naples, Warsaw, London, Lima, Los Angeles; tunnels of the highspeed railway between Milano and Genoa, Lonato, Turin-Lyon; Maldonado railway tunnel (Argentina); road tunnels of the Gronda of Genoa, Sparvo and Santa Lucia and Caltanissetta)  
Tests on two-component mortar for shield backfilling (Rome Metro, Bolertunnel (Germany), Turin-Lyon exploratory tunnel)  
Full scale tests on net fences, embankments and drapery meshes for rockfall protection

## **Publications & patents**

More than 250 technical and scientific papers presented at international journals and congresses.  
Two Italian patents concerning new types of rockfall protection net fences

## **Awards**

Honorary Affiliate Member of the International Tunneling and Underground space Association (2016)

## **Professional Association offices**

International Tunneling and Underground space Association: Expert of the Executive Council (2016-2019), Vice-President (2013-2016), Executive Council Member (2010-2013)  
Italian Tunnelling Association, Vice-President (2016-present); Executive Board Member (1998-2007 & 2010-16)  
Associazione Georisorse e Ambiente: Executive Board Member (2005-2012)  
TRB–Transportation Research Board (USA). Committee on Engineering Geology, Member (2002-2018)

## **Editor of scientific journals and member of editorial boards**

**Editor:** Tunnelling and Underground Space Technology (2011-2018);  
**Editor in chief:** Geoingegneria Ambientale e Mineraria (GEAM) (2007-present)  
**Editorial Board Member:** Tunnelling and Underground Space Technology; Tunnel Magazin, Czech Tunneling Society; Material and geoenvironment, RMZ – University of Ljubljana; Underground Space; Gallerie e grandi opere sotterranee; Engineering (Special Issue on Tunneling & Underground Space) (2017); Archives of Civil Engineering – University of Warsaw

## Coordinator of the Advisory Scientific Board & member of the the Organizing Committee

World Tunnel Congress 2019 in Naples (Italy)

### *Community services*

Member of the City Council of Vercelli (2015-2019)

### *Accademic activities*

*Politecnico di Torino – Faculty of Engineering*

**Specializing Master Courses** (advanced studies): "Tunnelling and Tunnel Boring Machines". Director of the course.

**MsC Courses:** Tunnelling (2002– present); Ground Reinforcing (1997-2000; 2017-present); Mining Engineering (1997-2002); Underground Construction (1999)

**PhD courses:** Rock-fall Protection Techniques (2006-present)

### *Uninettuno International on-line university*

**MsC Courses:** Tunnelling (2016) – Video lectures (Italian - English)

### *Lectures for international courses and seminars*

INSA Lyon, Specializing Master Course: "Tunnels et Ouvrages Souterrains" endorsed by ITA and AFTES. (2011-2014)

Queen's University, Kingston (Canada). Two courses (2013)

Colorado School of Mines (USA) (2010)

National Technical University of Athens, Master Course "Design and construction of underground works"(2008)

Swiss Federal Institute of Technology Zurich (ETH). Einladung zum Kolloquium. (2006)

Universitat Innsbruck (Austria). (2003-2001)

Istituto di Scienze della Terra-Scuola Universitaria Professionale della Svizzera Italiana (CH) (2000)

Specializing Master course: "Underground Environment" (Financed by the EU Leonardo da Vinci project n. 196/2/0385/PI/II1.1c/FPI) involved Universities: Politecnico di Torino, Université de Paris VII, KTH Stoccolma, Eindhoven University of Technology and Technical University of Helsinki. (1998-1999)

Technical University of Petrosani (Romania) (1993)

**Lectures in Italian Universities:** Politecnico di Milano, Rome "La Sapienza", Udine, Trento, Palermo, Firenze, Genoa, Piemonte Orientale.

### **Lectures and courses for the Italian Boards of Engineers and of Geologists**

#### **International life learning courses**

"3rd International course on Tunnelling" in Guadalajara (Mexico), organized by AMITOS (Mexican association for Tunnelling and Underground Space) and ITACET Foundation (2015)

"Tunnelling for Transport in Urban Areas" in Kuala Lumpur organized by the Institution of Engineers, Malaysia (IEM) and ITACET foundation (2015); "Mechanised Tunnelling" in Santiago organized by CTES (Chilean Committee for Tunnelling and Underground Space of the CDT of the Chilean Construction Chamber) and ITACET Foundation (2015); "Ground Improvement, Pre-Support & Reinforcement " in Geneva, organized by Swiss Tunnelling Society, ITA and ITACET Foundation (2013) "Mechanized Tunnelling in Urban Areas" in Rome, organized by Società Italiana Gallerie, ITA and ITACET Foundation (2012)

"Urban Tunnelling in Urban Areas"; Bangkok, organized by TUTG Thailand Underground and Tunneling Group, ITA and ITACET Foundations (2012) "General Tunnelling", Vancouver, organized by Tunnelling Association of Canada (TAC) and ITACET Foundation (2010)

"Risk during construction of urban tunnels in soft ground", Budapest, organized by ITA. (2009) "Tunnelling in Urban Area", Praga, organized by Czech Tunnelling Committee ITA-AITES and ITA (2007) "Tunnel Engineering", Istanbul, organized by ITA and ITU University (2005)

### **Scientific responsibility of Competitive National and International research**

#### **Rockfall protection**

2005 PRIN - Previsione, prevenzione e protezione da caduta di massi. Involved universities: Parma, Palermo, Brescia e Politecnico di Torino. Responsibility of the Research unit of Politecnico di Torino

2014-15 Regione Autonoma Valle d'Aosta: Servizio di Ricerca finanziato al Politecnico di Torino (DIATI e DISEG)

#### **Surface and underground mining**

2007 PRIN - Applicazione di tecnologie avanzate al monitoraggio ed alla caratterizzazione geomineraria per l'ottimizzazione della progettazione, delle rese e della gestione in sicurezza e tutela ambientale delle attività estrattive

in cava. Involved universities: Bologna, Firenze, Cagliari e Politecnico di Torino. Responsibility of the Research unit of Politecnico di Torino:

### **Tunnelling and underground works**

2014-15 HM-TUNES Project - PAR FSC 2007/13 Misura 1.3.c 'Interventi di sostegno per la realizzazione di poli di innovazione. Polo Nuovi materiali. EU funds managed by Piemonte Region (Fondi strutturali). Sviluppo di nuove formulazioni di utensili in metallo duro e loro utilizzo in combinazione con agenti condizionanti per l'escavazione di gallerie in terreno. Responsibility of the Research Unit of DIATI of Politecnico di Torino.

### **Most relevant activities as expert witness and consultant**

2018 Toluca Tunnel (Mexico City) Expert for soil conditioning aspects in the international board of experts in charge of following the project excavation.

2015-2017 Alaskan Way Viaduct Replacement Program (Seattle) WSDOT (USA). Expert for soil conditioning aspects in the international board of experts in charge of following the project

2015-2016 Frejus Tunnel (Italy-France). Member of the board (Italian side) to assess the stability conditions of the existing road tunnel during the excavation of a nearby cavern

2010 Hellenic Democracy. Ministry of infrastructures transport and networks (Greece). Member of the International expert board on the stability conditions of the Acheloos tunnel

2009 SISMIN II Programa de soporte al setor geologico-minero de la Republica Dominicana (Republica Dominicana) Obras para la valoracion y explotacion del yacimiento del Larimar – Convednio di Financiacion No. 9139/DO. Work financed by EU. Expertise on the stability of the access tunnel to the Larimar orebody

2006 Turin Province (Italy) Geotechnical and static advisor of a project with rockfall net fences and embankment

2005 Frejus Tunnel (Italy-France) Member of the board (Italian side) on the stability conditions of the concrete lining of the Frejus Highway tunnel after an important fire

2004 Member (company side) of the International Board for arbitration (Ireland) between Limerick Municipality and Uniform Construction Ltd (Dublin) on the microtunnel works of Limerick Main Drainage Northern Interceptor Sewer

2004-2008 IREN (Torino, Italy) Geotechnical and static advisor of a water conveyance tunnel 14km long

2003-2004 State Attorney Office – Turin Tribunal (Italy) Prosecution to determine the safety of works and of workers in the Turin Metro tunnels excavated with an EPB machine (Lot 3-4-5 for 7.5 km long tunnels)

2004 State Attorney Office – Turin Tribunal (Italy) Prosecution to determine the causes of an accident at a Metro Station job site

### **Most recent research contracts**

(The complete list: [http://www.swas.polito.it/rubrica/scheda\\_pers.asp?matricola=001862&vis\\_prog=S#prog](http://www.swas.polito.it/rubrica/scheda_pers.asp?matricola=001862&vis_prog=S#prog))

#### **Tunnelling**

2018 CEPAV 2: "Ricerca sul condizionamento ottimale per i terreni alluvionali che saranno incontrati nello scavo nella galleria Lonato" (Research on soil conditioning of the alluvial soils that will be encountered in Lonato tunnel);

2018 Autostrade per l'Italia: "Ricerca sul condizionamento con prodotti innovativi delle masse rocciose che saranno incontrate nello scavo della galleria Santa Lucia" (Research on soil conditioning with innovative products of the rock masses that will be encountered in Santa Lucia tunnel);

2017-18 ILVA SpA: "Supporto tecnico per l'analisi delle tecnologie connesse alla realizzazione di un nuovo rivestimento in calcestruzzo armato all'interno delle gallerie 1 e 2 di adduzione di acqua di mare in uso allo stabilimento ILVA di Taranto" (Analysis of the technologies for the supports of two tunnels for sea water transportation in the ILVA plants in Taranto).;

2017 Sytral: "Programme de recherche relatif au conditionnement d'alluvions de type FV pour l'excavation mécanisée avec un tunnelier de type EPB (Metro of Lyon)" (Research on conditioning of the alluvial soils that will be encountered in the Metro of Lyon tunnels);

2016-18 Mapei SpA: "Studio dell'impermeabilizzazione di gallerie scavate in convenzionale" (Study of tunnel waterproofing technology in conventional tunnels);

2016 Mapei SpA: "Verifica della condizionabilità di un terreno proveniente dalla metropolitana di Lima (Perù) sia con prove di slump che con una prova di estrazione con coclea da camera in pressione" (Research on conditioning of the soil that will be encountered in Lima metro tunnels);

2016 Italferr SpA: "Studio sperimentale di condizionamento dei terreni da scavare con TBM-EPBs nel tratto Avigliana - Orbassano della nuova linea ferroviaria Torino-Lyon" (Research of conditioning of soil that will be encountered in the railway tunnels between Avigliana and Orbassano of the new line Turin-Lyon);

2015-16 Pavimental SpA.: "Campo di sperimentazione per verificare la qualificazione di terre e rocce da scavo prodotte nella realizzazione della Galleria S. Lucia dell'Autostrada A1 Barberino del Mugello – Calenzano nonché il corretto condizionamento del materiale all'interno della camera di scavo della fresa TBM modello EPB utilizzata durante l'avanzamento". (Research on conditioning of the soil that will be encountered in Santa Lucia tunnel of the highway A1) (2 contracts);

2015-16 Eiffage Genie Civil: “Determinazione del comportamento meccanico di miscele bicomponenti utilizzate nello scavo meccanizzato di gallerie” (Study of the mechanical behaviour of two-component mix used for backfilling in shield tunnelling);

2014-15 Mapei SpA: “Studio della durabilità del sistema di tipo bi-componente utilizzato per il riempimento del vuoto anulare a tergo dei conci durante lo scavo di gallerie con TBM scudate” (Study of the durability of two-component mix used for backfilling in shield tunnelling);

2015-18 CMC SpA: “Validazione procedimento, analisi geotecniche per condizionamento materiali da scavare con TBM nella metropolitana di Catania” (Evaluation of the procedures and geotechnical analyses of the material to be excavated by EPB-TBM in the metro of Catania) (3 contracts);

2014-16 COCIV: “Studio del condizionamento dei terreni e delle rocce che saranno incontrate durante lo scavo delle gallerie del Terzo Valico dei Giovi” (Research on conditioning of the rock masses that will be encountered in the railway tunnels of Terzo Valico dei Giovi). (2 contracts);

2014 SITAF SpA: “Verifica delle problematiche geomeccaniche indotte dallo scavo di una caverna in prossimità del Traforo Stradale del Frejus” (Evaluation of the geomechanical problems induced by the excavation of a cavern close to the Frejus tunnel);

2014 Empedocle 2 Scpa: “Studi sulla condizionabilità delle argille in cui sarà scavata la galleria Caltanissetta” (Research on conditioning of the clays that will be encountered in the Caltanissetta tunnel);

### **Surface and underground mining**

2006-19 Imerys Talc SpA: Ricerca e sviluppo di procedure tecniche per il controllo della stabilità degli scavi della miniera di Fontane Rodoretto (Researches for the stability analysis of the Rodoretto mine drifts and underground works). (6 contracts);

2012 Regione Autonoma Valle d'Aosta: “Misurazione delle vibrazioni trasmesse nelle aree limitrofe in occasione dell'esecuzione delle volate all'interno dei siti estrattivi” (Measurements of vibration induced by blasting in a quarry area);

2011-12 Regione Autonoma Valle d'Aosta: Servizi relativi allo studio della circolazione d'acqua nei livelli di base della Miniera di Cogne. (Assessment of underground water circulation after the mine closure on the drifts of Cogne mine). (2 contracts);

### **Rock fall protection**

2011-14 Regione Autonoma Valle d'Aosta: Definizione di un protocollo e di una metodologia operativa per la quantificazione del rischio da caduta massi (Definition of a protocol and a methodology for rockfall risk assessment).;

2013 Terna SpA: “Studio relativo all'uso di terrapieni per la protezione di sostegni tubolari di alta tensione a 380kV – Linea Cassano–Chiari” (Research on the design of embankments to protect the poles of the high tension wire line at 380kV Cassano – Chiari);

2008-16 Musinet Engineering SpA: “Interpretazione dei dati relativi agli impianti della frana del Chassas ai fini della comprensione del trend cinematico” (Interpretation of in situ monitoring of the Chassas landslide) (6 contracts);

2010-11 Gruppo Trasporti Torinese: “Studio dei versanti rocciosi sovrastanti la linea ferroviaria Torino-Ceres nel tratto da Germagnano a Ceres per la definizione delle tipologie di intervento di protezione contro la caduta di massi” (Studies of the stability of rock slopes overhanging the railway line Torino-Ceres from Germagnano to Ceres and definition of rockfall protection techniques);

## **Most Relevant Papers**

The complete list can be found at: <http://porto.polito.it/view/creators/Peila=3ADaniele=3A001862=3A.html>

### **Journals indexed in the databases Scopus e/o WoS**

#### Rockfall protection

Luciani A., Todaro C., Peila D. (2018). Maintenance and risk management of rockfall protection net fences through numerical study of damage influence, *Frattura ed Integrità Strutturale*, 43 (1), pp. 241-250, DOI: 10.3221/IGF-ESIS.43.19

Bella G., Barbero M., Barpi F., Borri-Brunetto M., Peila D. (2017). An innovative bio-engineering retaining structure for supporting unstable soil, *Journal of Rock Mechanics and Geotechnical Engineering*, 9 (2), pp. 247-259. DOI: 10.1016/j.jrmge.2016.12.002

De Biagi, V., Lia Napoli, M., Barbero, M., Peila, (2017) D. Estimation of the return period of rockfall blocks according to their size *Natural Hazards and Earth System Sciences*, 17 (1), European Geoscience Union, Copernicus GmbH, Gottingen (Germany), pp. 103-113, ISSN 1561-8633, DOI: 10.5194/nhess-17-103-2017

Luciani, A., Peila, D., Barbero, M. (2016) Studio numerico dell'influenza dell'ammaloramento delle barriere paramassi a rete, *Geingegneria Ambientale e Mineraria*, 147 (1), pp. 31-38.

De Biagi V., Botto A., Lia Napoli M., Dimasi C., Laio, F., Peila D., Barbero M. (2016) Calcolo del tempo di ritorno dei crolli in roccia in funzione della volumetria (2016) *Geingegneria Ambientale e Mineraria*, 147 (1), pp. 39-47.

Dimasi, C., Luciani, A., Martinelli, D., Paganone, M., Peila, D. (2015) Controllo delle barriere paramassi a rete per la loro gestione e manutenzione, *Geingegneria Ambientale e Mineraria*, 146 (3), pp. 65-71.

Mignelli C., Peila D., Lo Russo S., Ratto S.M., Broccolato M. (2014). Analysis of rockfall risk on mountainside roads: evaluation of the effect of protection devices. *Natural Hazards*, Vol. 73, n. 1, *Journal of the International Society for the Prevention and Mitigation of Natural Hazards*, Springer, New York, pp. 25-35. - ISSN 0921-030; DOI: 10.1007/s11069-013-0737-4

Barbero M., Barpi F., Borri Brunetto M., Peila D. (2014). Principi di dimensionamento della palificata loricata "Terrasafe", *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, Bologna, Vol. 142, pp. 43-48, ISSN: 1121-9041

Barbero M., Barpi F., Borri Brunetto M., Pallara O., Peila D., Peila L., Valfrè A., Cornelini P. (2013). Comportamento di una palificata prefabbricata per il contenimento delle terre: studi sperimentali, *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, Bologna, Vol. 138, n. 1, pp. 5-12, ISSN: 1121-9041

Mignelli C., Pomarico S., Peila D. (2013). Use of Multi-Criteria Model to Compare Devices for the Protection of Roads against Rockfall, *Environmental & Engineering Geoscience*, Association of Environmental & Engineering Geologists and the Geological Society of America, Boulder, (CO, USA), Vol. XIX, n. 3, pp. 289-302, ISSN: 1078-7275, DOI: 10.2113/gseegeosci.19.3.289

Mignelli C., Lo Russo S., Peila D. (2012). ROCKfall risk MANAGEMENT assessment: the RO.MA. approach. *Natural Hazards*, *Journal of the International Society for the Prevention and Mitigation of Natural Hazards*, Springer, New York, Vol. 62, n. 3, pp. 1109-1123, ISSN 0921-030X DOI: 10.1007/s11069-012-0137-1

Peila D., Patrucco M., Falanesca M. (2011). Quantification and management of rockfall risk in opencast quarrying activities. *Environmental and Engineering Geoscience*, The Geological Society of America, Boulder, (USA), Vol. 17, n. 1, pp. 39-51, ISSN 1078-7275, DOI: 10.2113/gseegeosci.17.1.39

Falanesca M., Borio L., Picchio A., Peila D. (2010). QuaRRi: a new methodology for rock-fall risk analysis and management in quarry exploitation, *Gospodarka Surowcami Mineralnymi*, Polish Academy of Science. Committee of Mineral Economy Sustainable Development, *Istytut Gospodarki Surowcami Mineralnymi i Energia*, Krakow (PL), Vol. 26, n. 4, pp. 149-161, ISSN: 0860-0953

Bertolo P., Oggeri C., Peila D. (2009). Full-scale testing of draped nets for rock fall protection. *Canadian Geotechnical Journal*, Vol. 46 (2) pp. 306-317. NCR Research Press, Ottawa (CA), ISSN 0008-3674., DOI: 10.1139/T08-126

Peila D., Valfrè A. (2009). Uso di sistemi di telecontrollo in remoto per il monitoraggio di interventi di difesa da caduta massi. *Geingegneria Ambientale e Mineraria*, Associazione Georisorse e Ambiente, Torino, Patron Editore, Bologna, Vol. XLVI, n. 3, pp. 69-72, ISSN: 1121-9041

Ronco C., Oggeri C., Peila D. (2009). Design of reinforced ground embankments used for rockfall protection. *Natural Hazards and Earth System Sciences*, Vol. 9, n. 4, pp. 1189-1199, Copernicus Publications, European Geosciences Union, Kathlenburg-Lindau (Germany), ISSN 1561-8633, DOI: 10.5194/nhess-9-1189-2009

Peila D., Ronco C. (2009). Technical Note: Design of rockfall net fences and the new ETAG 027 European guideline. *Natural Hazards and Earth System Sciences*, vol. 9, n. 4, pp. 1291-1298. European Geoscience Union, Copernicus GmbH, Gottingen (Germany), ISSN 1561-8633; DOI: 10.5194/nhess-9-1291-2009

Peila D., Guardini C. (2008). Use of the event tree to assess the risk reduction obtained from rockfall protection devices. *Natural Hazards and Earth System Sciences*, vol. 8 n. 6, pp. 1441-1450. European Geoscience Union, Copernicus GmbH, Gottingen (Germany), ISSN 1561-8633, DOI:10.5194/nhess-8-1441-2008

Peila D.; Baratono P. (2008). L'ETAG 27: una grande innovazione nel settore delle opere di protezione contro la caduta di massi, *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, Vol. XLV, n. 3, pp. 49-52, ISSN: 1121-9041

Casale M., Oggeri C., Peila D. (2008). Improvements of safety conditions of unstable rock slopes through the use of explosives. *Natural Hazards and Earth System Sciences*, vol. 8 n. 3, pp. 473-481, European Geoscience Union, Copernicus GmbH, Gottingen (Germany), ISSN 1561-8633, DOI: 10.5194/nhess-8-473-2008

Peila D., Oggeri C., Castiglia C. (2007), Ground reinforced embankments for rockfall protection: design and evaluation of full scale tests, *Landslides*, vol. 4(3), pp. 255-265, Springer-Verlag, Heidelberg (Germany), ISSN: 1612-510X, DOI: 10.1007/s10346-007-0081-4

Bertolo P., Oggeri C., Peila D., Ferraiolo F., Rossi B., Giacchetti G. (2007), Metodologia per prove in vera grandezza su sistemi di protezione corticale dei versanti, *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, vol. XLIV, n. 2, pp.5-12 ISSN: 1121-9041

Peila D., Oggeri C. (2003), The use of rockfall protection systems in surface mining activity, *International Journal of Surface Mining, Reclamation and Environment*, Swets & Zeitlinger, The Netherlands, vol. 17, n. 1, pp. 51-64, ISSN: 1389-5265, DOI: 10.1076/ijsm.17.1.51.8625

Peila D., Pelizza, S., Sassudelli F. (1998), Evaluation of behaviour of rockfall restraining nets by full scale tests, *Rock Mechanics and Rock Engineering*, Springer-Verlag, Wien, Vol. 31, n. 1, pp. 1-24, ISSN: 0723-2632, DOI: 10.1007/s006030050006

## Tunnelling

Luciani A., Peila D. (2019). Tunnel waterproofing: available technologies and evaluation through risk analysis, *International Journal of Civil Engineering*, ISSN: 1735-0522 (print version), Springer International

Shah R., Lavasan A.A., Peila D., Todaro C., Luciani A., Schanz T. (2018). Numerical Study of backfilling the tail void using two/component grout, *Journal of Materials in Civil Engineering*, ASCE, 30 (3), ISSN 0899/1562 , DOI: 10.1061/(ASCE)MT.1943-5533.0002175

Oñate Salazar C.G., Todaro C., Bosio F., Bassini E., Ugues D., Peila D. (2018), A new test device for the study of metal wear in conditioned granular soil used in EPB shield tunnelling, *Tunnelling and Underground Space Technology*, Volume 73, March 2018, pp. 212–221, Elsevier Science Ltd., Oxford (UK), ISSN: 0886-7798; DOI: 10.1016/j.tust.2017.12.014

Luciani A., Todaro C., Peila D. (2018). Maintenance and risk management of rockfall protection net fences through numerical study of damage influence, *Frattura ed Integrità Strutturale*, 43 (1), pp. 241-250, DOI: 10.3221/IGF-ESIS.43.19

Bosio F., Bassini E., Oñate Salazar C.G., Ugues D., Peila D. (2018). The influence of microstructure on abrasive wear resistance of selected cemented carbide grades operating as cutting tools in dry and foam conditioned soil, *Wear*, 394-395, Elsevier Ltd, pp. 203-216. DOI: 10.1016/j.wear.2017.11.002

Peila D., Marchino C., Todaro C., Luciani A. (2017). Comparison of the results of analytical and numerical models of a pre-reinforcement in shallow tunnels, *Archives of Civil Engineering*, 4/2017, Warsaw University of Technology Publishing House, Warsaw

Ambrogio F., Peila D., Barbero M., Eccher G. (2017). Valutazione delle correlazioni tra parametri macchina di TBM-EPB e cedimenti indotti in superficie mediante l'uso di modelli a rete neurale, *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, Bologna, Vol. 150 (1), pp. 47-52, ISSN: 1121-9041

Martinelli, D., Winderholler, R., Peila, D. (2017). Undrained behaviour of granular soils conditioned for EPB tunnelling – A new experimental procedure, *Geomechanik und Tunnelbau*, 10 (1), pp. 81-89. DOI: 10.1002/geot.201600019

Peila, D., Picchio, A., Martinelli, D., Negro, E.D. (2016) Laboratory tests on soil conditioning of clayey soil *Acta Geotechnica*, 11 (5), pp. 1061-1074. DOI: 10.1007/s11440-015-0406-8

Peila, D., Martinelli, D., Luciani, A. (2016). Uso delle gallerie per la stabilizzazione di versanti in frana, *Geingegneria Ambientale e Mineraria*, 148 (2), pp. 61-66.

Salazar, C.G.O., Martinelli, D., Todaro, C., Luciani, A., Boscaro, A., Peila, D. (2016). Preliminary study of wear induced by granular soil on metallic parts of EPB tunnelling machines, *Geingegneria Ambientale e Mineraria*, 148 (2), pp. 67-70.

Martinelli, D., Peila, D., Campa, E. Feasibility study of tar sands conditioning for earth pressure balance tunnelling (2015) *Journal of Rock Mechanics and Geotechnical Engineering*, 7 (6), pp. 684-690. DOI: 10.1016/j.jrmge.2015.09.002

Brino G., Peila D., Steidl A., Fasching F. (2015) Prediction of performance and cutter wear in rock TBM: Application to Koralm tunnel project (2015) *Geingegneria Ambientale e Mineraria*, 145 (2), pp. 37-58.

Peila D., Chierigato A., Martinelli D., Onate Salazar C., Shah R., Boscaro A., Dal Negro E., Picchio A. (2015). Long term behavior of two component back-fill grout mix used in full face mechanized tunnelling, *Geingegneria Ambientale e Mineraria*, Associazione Georisorse ed Ambiente, Torino, Patron Editore, Bologna, Vol. 144, pp. 57-63, ISSN: 1121-9041

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