

CURRICULUM VITAE

Gabriele Bertagnoli



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April 2019

Personal data herewith presented can be handled according to Italian Law (art. 13 D. Lgs. 196/20)

Academic experience

Assistant Professor at Politecnico di Torino, Italy
May 2008 - Present

Research Fellow at Politecnico di Torino, Italy
January 2004 - April 2008

Education

Post-doc course "Applied Tensor Analysis for Constitutive Modelling", Delft University of Technology, Delft, The Netherlands.
June 2004

PhD in Structural Engineering at Politecnico di Torino, Italy.
January 2001- December 2003

Post-doc course "Stability of Structures, modern problems and unconventional solutions", CISM, Udine, Italy.
July 2001

Master degree course in Civil Engineering at Politecnico di Torino, Italy.
Degree obtained with 109/110.
September 1994 – December 2000

Liceo Scientifico Statale Alessandro Volta, Torino, Italy
Italian secondary school diploma. Scientific certificate obtained with 60/60 with laude.
September 1989 – July 1994

Languages

Italian	Mother Tongue
English	Full professional proficiency

Research Projects

Gabriele Bertagnoli develops research projects within the following research fields:

- Structural health monitoring.
 - Cracking, bond and lap issues in reinforced concrete structures
 - Analysis and design of composite steel-concrete structures.
 - Rain wind induced vibrations in stay-cables.
 - Prestressed and composite steel-concrete bridges.
 - Analysis and design of reinforced and prestressed concrete structures.
 - Optimization of reinforcement layout in concrete structures.
 - Young hardening concrete and massive castings.
 - Deterioration of reinforced concrete structures.
 - Precast concrete structures.
 - Use of fly ashes in stabilized road bases.
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Leadership of research projects

Private funding

Research project for Sintecna s.r.l. and Edile Engineering and Construction “Evaluation of thermomechanical issues in massive concrete castings”

Design of construction phases of the foundations of the Galeazzi Orthopaedic Hospital in Milan to control autogenous cracking due to concrete hardening and autogenous deformations.

Funded amount: 40.000 €.

From 14-12-2018 to 14-04-2019

Research project for Safecertifiedstructures Tecnologia s.r.l. “Structural Health Monitoring of civil engineering structures”

Development of a procedures to process data coming from SHM on highway tunnels and bridges.

Funded amount: 28.000 €.

From 13-07-2018 to 12-07-2019

Research project for S.i.t.a.f. S.p.a per "Analysis of the effect of abnormal loads on the secondary bridges A32 Highway (Torino-Bardonecchia)"

Development of a software able to calculate the effects of an abnormal load moving on a set of existing bridges and compare it to normal traffic effects.

Funded amount: 37.000 €.

From 01-11-2017 to 23-05-2018

Research project for S.i.t.a.f. S.p.a per "Analysis of the effect of abnormal loads on the bridges overcrossing A32 Highway (Torino-Bardonecchia)"

Development of a software able to calculate the effects of an abnormal load moving on a set of existing bridges and compare it to normal traffic effects.

Funded amount: 38.000 €.
From 01-11-2017 to 23-05-2018

Research project for Safecertifiedstructures Tecnologia s.r.l. “Structural Identification of civil engineering structures with innovative sensors”

Development of a software able to perform SHM on highway tunnels by means of clinometers.

Funded amount: 27.500 €.

Publications:

- Alovisi I.; Bertagnoli G.; Benini L.; Cigada A.; Darò P.; Malavisi M.; Mancini G.; Meda A.; Melpignano D., Murari B., Riva P., Savoia M. (2018) Un sistema competitivo per il monitoraggio e la diagnostica della salute strutturale basato sul cloud. In: Structural, vol. 215, pp. 1-14. - ISSN 2282-3794.
- Anerdi C.; Gino D.; Malavisi M.; Bertagnoli G. (2018) A sensor for embedded stress measure of concrete: testing and material heterogeneity issues In: Italian Concrete Days Giornate AICAP 2018 Congresso CTE Il Calcestruzzo Strutturale Oggi Teoria – Impieghi – Materiali – Tecniche, Milano / Lecco 13-16 June 2018, pp. 1-8.

From 03-05-2017 to 02-05-2018

Research project for ST Microelectronics S.p.a. “Structural Health Monitoring by means of MEMS Devices”

Development of a software able to clean the data coming from clinometers and perform SHM.

Funded amount: 22.500 €.

From 04-07-2016 to 04-07-2017

Public funding

Progetto PON INSIST – Sistema di Monitoraggio INtelligente per la Sicurezza delle infraStrutture urbane

Industrial Research Project of the Italian Ministry of Research (MIUR) in the field of “Smart Secure & Inclusive Communities”. Chairman of research program prof. E. Cosenza, Total Funded amount € 7.510.000 Leadership of the Politecnico di Torino research Unit.

Funded amount for the research unit: € 160.000

Publications:

From 04-04-2019

Smart Cities and Communities and Social Innovation (MIUR) "Smart Concrete - Sviluppo di tecnologie e sistemi efficienti, ad alte prestazioni e a basso costo, per il monitoraggio strutturale interno di edifici ed opere civili in calcestruzzo e per la loro messa in sicurezza" (code SCN_00190)

[Italian University and Research Ministry industrial research project “Smart Concrete – Development of technologies and efficient systems with high performances and low cost for structural health monitoring and retrofitting of concrete buildings and infrastructures”

Leadership of the Politecnico di Torino research Unit.

Funded amount for the research unit: € 684.903

Publications:

From 01-11-2017 to 31-03-2018

Collaboration to research projects

Private funding

Research project for Buzzi Unicem S.p.a. “Mechanical characterization of concrete made with aluminium sulphate cement.”

Mechanical and rheological characterization of a concrete mix realized with aluminium sulphate cement by means of laboratory testing.

Team member of the research unit. Chairman prof. G. Mancini.

Funded amount: 40.000 €

Publications:

- Anerdi C.; Bertagnoli G.; Canonico F.; Malavisi M.; Tondolo F.; Mancini G. (2018) Calcium Sulfoaluminate based Concrete Mechanical Characterization In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2018, Prague, 18–22 June 2018 pp. 1-10.

[From 17-12-2013 to 17-12-2014](#)

Research project for Società Consortile a r.l. Torre “Study of Massive concrete casting”

Support to the design of the massive foundation of the Intesa San Paolo Skyscraper in Torino. Realization of the 2nd world biggest concrete casting of 2010.

Team member of the research unit. Chairman prof. G. Mancini.

Funded amount: 45.000 €

Publications:

- Bertagnoli G.; La Mazza D.; Mancini G.; Tondolo F. (2016) Design of massive casting controlling early age properties of concrete. In: Concrete under Severe Conditions - Environment and Loading / Matteo Colombo, Marco di Prisco. Trans Tech Publications Ltd, pp. 126-133. ISBN 9783035710441

[From 09-06-2010 to 09-09-2010](#)

Research project for ENEL “Use of coal fly ashes in the production of stabilized road bases and industrial pavements”

Use of fly ashes for stabilized road bases.

Team member of the research unit. Chairman prof. G. Mancini.

Funded amount: 50.000 €

Publications:

- Mancini G.; Bertagnoli G.; Gino D.; Malavisi M.; Pasqualini A. (2016) Use of coal fly ash in concrete mixtures for pavements foundations. In: "Evoluzione e Sostenibilità delle Strutture in calcestruzzo" – Italian Concrete Days Giornate AICAP 2016 Congresso CTE, Roma, 27-28 Ottobre 2016

[From 20-07-2009 to 10-03-2011](#)

Research project for Sintecna s.r.l. “Study of early age concrete self restrained deformations on foundation caissons of Venice MOSE Dams”

Design of construction phases of the foundations of the MOSE Venice dam system to control autogenous cracking. In detail the following structures have been studied:

- Malamocco gate
- Treporti gate
- S. Nicolò gate
- Chioggia gate
- Chioggia abutment

Team member of the research unit. Chairman prof. G. Mancini.

Funded amount: 73.000 €

Publications:

- Bertagnoli G.; Mancini G.; Tondolo F. (2009) Numerical modeling of early age concrete hardening. In: Magazine of Concrete Research, vol. 61, pp. 299-307. - ISSN 0024-9831
- Bertagnoli G.; Mancini G. (2012) Autogenous deformations in massive concrete structures. In: RILEM-JCI International Workshop on Crack Control of Mass Concrete and Related Issues concerning Early-Age of Concrete Structures - Concrack 3 - Control of Cracking in Concrete Structures 3, Paris, 15-16 March 2012. pp. 167-180

- Bertagnoli G.; Anerdi C.; Malavisi M.; Zoratto N. (2017) Autogenous Crack Control during Construction Phases of MOSE Venice Dams. In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2017, Prague, 12–16 June 2017. pp. 1-10

From 01-01-2009 to 31-08-2011

Research project for ITALFERR (Italian Railroad Authority) “Study of cracking phenomena of some railroad viaducts of the High Speed/High Capacity line Milano-Bologna in proximity of Modena”

Study of the cracking phenomena that took place just after the casting on the piers of some railway viaducts because of hydration heat and rheological properties of concrete.

Team member of the research unit. Chairman prof. G. Mancini.

Funded amount: 50.000 €

Publications:

- Bertagnoli G.; Mancini G.; Tondolo F. (2011) Early age cracking of massive concrete piers. In: Magazine of Concrete research, vol. 63 n. 10, pp. 723-736. - ISSN 0024-9831

From 10-03-2005 to 17-01-2006

Research project for Guerrini Prefabbricati S.p.A. “Failure Mechanism of precast socket foundations”

Failure mechanism of a precast socket foundation.

Team member of the research unit. Chairman prof. R. Rossetti.

Funded amount:

Publications:

- Rossetti R; Bertagnoli G.; Garlone G; Antoniotti E. Padovani C; Fiorio S (2006) Comportamento a rottura di plinto a pozzetto prefabbricato. In: 16° Congresso C.T.E, 9-11/11/2006.

Form 01-01-2005 to 31-10-2005

Public funding

PRIN 2017 – Life-long optimized structural assessment and proactive maintenance with pervasive sensing techniques

Italian National Interest research Program 2017. Chairman of research program prof. M. Savoia.

Member of the research unit of Politecnico di Torino. Chairman of research unit prof. P. Castaldo.

Funded amount: € 108.000

Publications:

From 13-03-2019

Progetto ReLUIIS-DPC 2014-2018 Accordo-Quadro "Supporto alle attività di gestione tecnica dell'emergenza e connesse ai programmi di prevenzione sismica, per lo sviluppo della conoscenza e l'assistenza alla redazione di norme tecniche, per la collaborazione alle attività di formazione, comunicazione e divulgazione"

[Laboratories University Network of Seismic Engineering and Civil Protection Department project “ Support of technical management of seismic emergency, prevention, codes redaction, formation courses, communication and divulgation”.

Member of research unit "WP1: Capacità sismica di elementi strutturali esistenti in c.a.: travi, pilastri, nodi e pareti" Chairman of research unit prof. G. Mancini.

Funded amount:

Publications:

- Mancini G., Allaix D.L., Bertagnoli G. (2014) Comparison between safety formats in nonlinear analysis of a reinforced concrete structure. In: 9th International Diana Users Meeting, Parma, 4/5-November-2014.
- Bertagnoli G.; La Mazza D.; Mancini G. (2015) Effect of concrete tensile strength in non linear analyses of 2D structures - a comparison between three commercial finite element softwares. In: 3rd International Conference on Advances in Civil, Structural and Construction Engineering - CSCE 2015, Roma, 10-11December 2015. pp. 104-111
- Mancini G.; Bertagnoli G.; La Mazza D.; Gino D. (2016) Comparison between non-linear numerical models for R.C. shear walls under cyclic loading. In: "Evoluzione e Sostenibilità delle Strutture in

calcestruzzo" – Italian Concrete Days Giornate AICAP 2016 Congresso CTE, Roma, 27-28 Ottobre 2016 - pp. 1-8. - ISBN 978-88-99916-02-2

- Gino D.; Bertagnoli G.; La Mazza D.; Mancini G. (2017) A Quantification of Model Uncertainties in NLFEA of R.C. Shear Walls Subjected to Repeated Loading. In: INGEGNERIA SISMICA, vol. 34 n. Specia, pp. 79-91. - ISSN 0393-1420

From 01-01-2014 to 31-12-2017

Smart Cities and Communities and Social Innovation (MIUR) "Smart Concrete - Sviluppo di tecnologie e sistemi efficienti, ad alte prestazioni e a basso costo, per il monitoraggio strutturale interno di edifici ed opere civili in calcestruzzo e per la loro messa in sicurezza" (code SCN_00190)

[Italian University and Research Ministry industrial research project "Smart Concrete – Development of technologies and efficient systems with high performances and low cost for structural health monitoring and retrofitting of concrete buildings and infrastructures"]

Member of research unit of Politecnico di Torino. Chairman of research unit prof. G. Mancini.

Funded amount: € 684.903

Publications:

From 01-08-2013 to 01-11-2017

Progetto ReLUIS 2005-2008

[Laboratories University Network of Seismic Engineering project 2005-2008]

Member of the research unit "Linea 3 – Valutazione e riduzione del rischio sismico dei ponti esistenti" [Line 3 – Evaluation and reduction of seismic hazard in existing bridges] Chairmen of research unit prof. G. Mancini and prof. P.E. Pinto.

Funded amount:

Publications:

From 01-01-2007 to 31-12-2007

Research project for Regione Piemonte "Evaluation of the properties of Regione Piemonte within the Stupinigi and the river Po environmental parks"

Evaluation of the structural safety of historical masonry buildings belonging to the Royal Stupinigi complex in Torino (IT).

Team member of the research unit. Chairman prof. R. Roscelli.

Publications:

From 01-02-2010 to 31-05-2010

PRIN 2005 "Modellazione dei processi di deterioramento delle strutture in c.a."

[Italian National Interest research Program 2005 "Modelling of deterioration process of reinforced concrete structures"] Chairman of research program prof. G. Mancini.

Member of research unit "Modellazione della riduzione di aderenza per effetto di corrosione e valutazione della sicurezza residua" Chairman of research unit prof. G. Mancini.

Funded amount: € 125.000

Publications:

- Bertagnoli G.; Mancini G; Tondolo F (2006) Bond deterioration due to corrosion and actual bearing capacity. In: second fib congress, Naples, June 5-8 2006 - ISBN: 9788889972052
- Bertagnoli G.; Mancini G.; Tondolo F. (2007) Modelling R.C. Structures in presence of reinforcement corrosion. In: International RILEM Workshop on Integral Service Life Modelling of Concrete Structures, Guimares, 05-06/11/2007. pp. 247-254 – ISBN: 9782351580585

From 01-01-2005 to 31-12-2006

PRIN 2003 "Le proprietà chimico-fisico-meccaniche dei calcestruzzi autocompattanti e le loro implicazioni strutturali"

[Italian National Interest research Program 2003 "Chemical-Physical-Mechanical properties of self-compacting concretes and their structural use."] Chairman of research program prof. F. Mola.

Member of the research unit "Comportamento dei calcestruzzi autocompattanti (SCC) nella riparazione e consolidamento dei ponti" Chairman of research unit prof. G. Mancini.

Funded amount: € 66.600

Publications:

From 01-01-2003 to 31-12-2004

PRIN 2002 "Identificazione, modellazione, analisi e controllo delle incertezze nel progetto dei ponti di grande luce"

[Italian National Interest research Program 2002 "Identification, modelling and control of model uncertainties in long span bridges"] Chairman of research program prof. P.G. Malerba.

Member of the research unit "Effetto delle incertezze di modello nel progetto dei ponti" Chairman of research unit prof. G. Mancini.

Funded amount: € 80.000

Publications:

- Bertagnoli G.; Giordano L.; Mancini G. (2004) Safety format for the nonlinear analysis of concrete structures. In: Studi e Ricerche, vol. 25, pp. 31-56. - ISSN 1121-6069
- Bertagnoli G.; Carbone V.I.; Giordano L.; Mancini G. (2004) Safety format for non-linear analysis. In: Concrete Structures: the Challenge of Creativity. fib Symposium 2004, Avignon, 26-28 April 2004.
- Bertagnoli G.; Carbone V.I.; Giordano L.; Mancini G. (2004) Coupling of prestressing tendons in segmental construction. In: fib Symposium on Segmental Construction in Concrete - Delhi, 26-29 Novembre.
- Bertagnoli G.; Carbone V.I.; Mancini G. (2007) Local effects of coupling of prestressing tendons in structural joints. In: fib Symposium "Concrete structures - Stimulators of development", Dubrovnik, 20-23 May 2007, pp. 607-614 – ISBN: 9789539542830

From 01-01-2002 to 31-12-2003

PRIN 2001 "Ponti e viadotti: evoluzione della concezione strutturale nel progetto e nella riabilitazione"

[Italian National Interest research Program 2001 "Bridges and Viaducts: evolution of conceptual design for construction and repair"] Chairman of research program prof. E. Siviero.

Member of the research unit "Problemi avanzati nella progettazione e riabilitazione di ponti e viadotti". Chairman of research unit prof. G. Mancini.

Funded amount: € 54.228

Publications:

- Bertagnoli G.; Carbone V.I.; Giordano L.; Mancini G. (2001) Repair and strengthening of damaged prestressed structures. In: Taerwe L. (ed.). Durability of Post tensioned tendons: Technical Report. Proceedings of a workshop held at Ghent University on 15-16 November 2001, fib Bulletin n. 15, pp. 139-153 – ISSN 1562-3610; ISBN 2-88394-055-X
- Bertagnoli G.; Carbone V.I.; Giordano L.; Mancini G. (2003) Design models for deteriorated concrete bridges. In Bontempi, F (ed.) System-based Vision for Strategic and Creative Design, Vols. 1-3 Pages: 1777-1782. 2nd International Conference on Structural and Construction Engineering, Roma, 23-26 settembre 2003. - ISBN:90-5809-599-1

From 01-01-2001 to 31-12-2002

Scientific Activity

Gabriele Bertagnoli is author of 15 papers and a discussion on International Journals, 1 on national journals, 5 book chapters, 52 papers in conference proceedings and 2 patents.

List of scientific publications

International Journal papers

1. Castaldo P.; Gino D.; Bertagnoli G.; Mancini G. (2018) Partial safety factor for resistance model uncertainties in 2D non-linear finite element analysis of reinforced concrete structures. In: ENGINEERING STRUCTURES, Vol. 176, pp. 746-762, ISSN 0141-0296.
2. Di Trapani F.; Bertagnoli G.; Ferrotto M. F.; Gino D. (2018) Empirical equations for the direct definition of stress-strain laws for fiber-section-based macromodeling of infilled frames - In: JOURNAL OF ENGINEERING MECHANICS, vol. 144, n. 11, pp. 1-17, ISSN 0733-9399.
3. Gino D.; Bertagnoli G.; La Mazza D.; Mancini G. (2017) A Quantification of Model Uncertainties in NLFEA of R.C. Shear Walls Subjected to Repeated Loading. In: INGEGNERIA SISMICA, vol. 34 n. Special, pp. 79-91, ISSN 0393-1420.
4. Mancini G.; Carbone V.I.; Bertagnoli G.; Gino D. (2017) Reliability-based evaluation of bond strength for tensed lapped joints and anchorages in new and existing reinforced concrete structures. In: STRUCTURAL CONCRETE, vol.19, n. 3, pp. 904-917, ISSN 1464-4177.
5. Bertagnoli G.; Gino D.; Martinelli E. (2017) A simplified method for predicting early-age stresses in slabs of steel-concrete composite beams in partial interaction. In: ENGINEERING STRUCTURES, vol. 140, pp. 286-297. - ISSN 0141-0296.
6. Bertagnoli G.; Giordano L.; Mancini S. (2014) A Metaheuristic Approach to Skew Reinforcement Optimization in Concrete Shells Under Multiple Loading Conditions. In: STRUCTURAL ENGINEERING INTERNATIONAL, vol. 24 n. 2, pp. 201-210. - ISSN 1016-8664.
7. Bertagnoli G., Giordano L., Mancini S. (2014) Optimization of concrete shells using genetic algorithms. In: ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, vol. 94 n. 1-2, pp. 43-54. - ISSN 0044-2267.
8. Bertagnoli G.; Giordano L.; Mancini S. (2012) Design and optimization of skew reinforcement in concrete shells. In: STRUCTURAL CONCRETE, vol. 13 n. 4, pp. 248-258. - ISSN 1464-4177.
9. Bertagnoli G.; Mancini G.; Tondolo F. (2011) Early age cracking of massive concrete piers. In: MAGAZINE OF CONCRETE RESEARCH, vol. 63 n. 10, pp. 723-736. - ISSN 0024-9831.
10. Bertagnoli G.; Mancini G.; Recupero A.; Spinella N. (2011) Rotating compression field model for reinforced concrete beams under prevalent shear actions. In: STRUCTURAL CONCRETE, vol. 12 n. 3, pp. 178-186. - ISSN 1464-4177.
11. Bertagnoli G.; Mancini G. (2010) Discussion: Failure analysis of hollow-core slabs tested in shear. In: STRUCTURAL CONCRETE, vol. 11 n. 4, pp. 229-230. - ISSN 1464-4177.
12. Bertagnoli G.; Mancini G. (2009) Failure Analysis of Hollow Core Slabs Tested in Shear. In: STRUCTURAL CONCRETE, vol. 10, pp. 139-152. - ISSN 1464-4177.
13. Bertagnoli G.; Mancini G.; Tondolo F. (2009) Numerical modeling of early age concrete hardening. In: MAGAZINE OF CONCRETE RESEARCH, vol. 61, pp. 299-307. - ISSN 0024-9831.
14. Bertagnoli G.; Carbone V.I (2008) A Finite Element formulation for concrete structures in plane stress. In: STRUCTURAL CONCRETE, vol. 9 n. 2, pp. 87-99. - ISSN 1464-4177.
15. Bertagnoli G.; Giordano L.; Mancini G. (2004) Safety format for the nonlinear analysis of concrete structures. In: STUDI E RICERCHE, vol. 25, pp. 31-56. - ISSN 1121-6069.

National Journal papers

- Alovisi I.; Bertagnoli G.; Benini L.; Cigada A.; Darò P.; Malavisi M.; Mancini G.; Meda A.; Melpignano D., Murari B., Riva P., Savoia M. (2018) Un sistema competitivo per il monitoraggio e la diagnostica della salute strutturale basato sul cloud. In: Structural, vol. 215, pp. 1-14. - ISSN 2282-3794.

Book Chapters

1. Dutto A., Bertagnoli G. (2019) Progetti per l'intersezione tra la ciclovia del Canale Cavour e il fiume Sesia. In: Ponti abitati e ciclovie. Piccolo manuale per la progettazione di velostazioni / Dutto, A. A.; Palma R., Araba Fenice Editore, pp. 1-166. ISBN 9788866175803.
2. Mancini G.; Bertagnoli G.; Tondolo F.; Malavisi M.; Zoratto N. (2018) I Cassoni di Soglia del MOSE di Venezia: scelte costruttive e controllo del fenomeno fessurativo durante la cantierizzazione. In: MOSE di Venezia – Contributi Tecnici / Manzone F., Lovisari. S. Maggioli Editore, Rimini, pp. 127-150. ISBN 8891626875.
3. Bertagnoli, Gabriele; La Mazza, Dario; Mancini, Giuseppe; Tondolo, Francesco (2016) Design of massive casting controlling early age properties of concrete. In: Concrete under Severe Conditions - Environment and Loading / Matteo Colombo, Marco di Prisco. Trans Tech Publications Ltd, pp. 126-133. ISBN 9783035710441.
4. Bertagnoli, Gabriele; Gino, Diego; Giordano, Luca; La Mazza, Dario; Mancini, Giuseppe (2016) Robustness of reinforced concrete framed buildings: A comparison between different numerical models. In: Concrete under Severe Conditions - Environment and Loading / Matteo Colombo, Marco di Prisco. Trans Tech Publications Ltd, pp. 814-821. ISBN 9783035710441.
5. Bertagnoli G., Biagini M.A., Mancini G. (2012) Orthotropic Model for the Analysis of Beams with Corrugated Steel Webs. In: Innovative Materials and Techniques in Concrete Construction (ACES workshop) / Fardis M. N. Springer Netherlands, Dordrecht, pp. 361-376. ISBN 9789400719965.

Congress proceedings

1. Gino D.; Bertagnoli G.; Castaldo P.; Mancini G. (2018) Design equations from empirical and semi-empirical resisting models: a reliability-based approach. In: Proceedings of the 12th fib International PhD Symposium in Civil Engineering 2018, Prague, 29-31 August 2018, pp. 397-404.
2. Gino D.; Bertagnoli G.; Castaldo P.; Mancini G. (2018) Probabilistic assessment of laps and anchorages strength in reinforced concrete structures In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2018, Prague, 18–22 June 2018 pp. 1-10.
3. Anerdi C.; Bertagnoli G.; Canonico F.; Malavisi M.; Tondolo F.; Mancini G. (2018) Calcium Sulfoaluminate based Concrete Mechanical Characterization In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2018, Prague, 18–22 June 2018 pp. 1-10.
4. Bertagnoli G.; La Fauci B. Gino D. (2018) Model uncertainties in f.e.m. analyses of punching failures of concrete slabs In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2018, Prague, 18–22 June 2018 pp. 1-10.
5. Di Trapani F.; Malavisi M.; Bertagnoli G.; Cavaleri L. (2018) Evaluation of fragility of infilled frame structures subject aftershocks by means of double incremental dynamic analysis approach. In: 16th European Conference on Earthquake Engineering, Thessaloniki, 18-21 June 2018, pp. 1-12.
6. Anerdi C.; Gino D.; Malavisi M.; Bertagnoli G. (2018) A sensor for embedded stress measure of concrete: testing and material heterogeneity issues In: Italian Concrete Days Giornate AICAP 2018 Congresso CTE Il Calcestruzzo Strutturale Oggi Teoria – Impieghi – Materiali – Tecniche, Milano / Lecco 13-16 June 2018, pp. 1-8.
7. Castaldo P.; Gino D.; La Mazza D.; Bertagnoli G.; Carbone V. I.; Mancini G. (2018) Assessment of the partial safety factor related to resisting model uncertainties in 2D NLFEA of R.C. systems, In: Italian Concrete Days Giornate AICAP 2018 Congresso CTE Il Calcestruzzo Strutturale Oggi Teoria – Impieghi – Materiali – Tecniche Milano / Lecco 13-16 June 2018, pp. 1-8.
8. Di Trapani F.; Bertagnoli G.; Gino D. (2017) A semi-empirical stress-strain model for equivalent strut fiber-section modelling of infilled frames. In: XVII Convegno ANIDIS - L'ingegneria sismica in Italia, Pistoia, 17-21 September 2017, ISBN 978-886741-8541.
9. Di Trapani F.; Bertagnoli G.; Mancini G.; Gino D.; Malavisi M. (2017) Definition of a fiber macro-model for nonlinear analysis of infilled frames. In: 6th International Conference on Computational

- Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2017, 15-17 June 2017, Rhodes Island, Greece, ISBN 9786188284425.
10. Di Trapani F.; Malavisi M.; Bertagnoli G.; Carbone V.I. (2017) A IDA based Framework for the Assessment of Seismic Fragility of Infilled Frames with and without prior Seismic Damage. In: XVII Convegno ANIDIS - L'ingegneria sismica in Italia, Pistoia, 17-21 September 2017, ISBN 978-886741-8541.
 11. Bertagnoli G.; Anerdi C.; Malavisi M.; Zoratto N. (2017) Autogenous Crack Control during Construction Phases of MOSE Venice Dams. In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2017, Prague, 12–16 June 2017. pp. 1-10.
 12. Di Trapani, F.; Malavisi, M.; Bertagnoli, G.; Carbone, V.I. (2017) Evaluation of Seismic Fragility of Infilled Reinforced Concrete Frames subjected to Aftershocks. In: 1st OPENSEES DAYS EUROPE 2017, Porto, 19-20 Giugno 2017. pp. 117-120.
 13. Anerdi C.; Bertagnoli G.; Gino D.; Malavisi M.; Mancini G. (2017) Prediction of Cracking Induced by Indirect Actions in RC Structures. In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium - WMCAUS 2017, Prague, 12–16 June 2017. pp. 1-10.
 14. Anerdi C.; Bertagnoli G.; Gino D.; Mancini G. (2017) Self restrained cracking of reinforced concrete elements. In: 2017 fib Symposium - High Tech Concrete: Where Technology and Engineering Meet, Maastricht (Ndl), pp. 631-640.
 15. Mancini, G; Bertagnoli, G; La Mazza, D; Gino, D (2016) Comparison between non-linear numerical models for R.C. shear walls under cyclic loading. In: Italian Concrete Days Giornate AICAP 2016 Congresso CTE, Roma, 27-28 ottobre 2016. pp. 1-8.
 16. Bertagnoli, G.; Gino, D.; Mancini, G. (2016) Effect of endogenous deformations in composite bridges. In: XIII International Conference on Metal Structures (CMS2016), Zielona Gora, 15-17 June 2016. pp. 287-298.
 17. Bertagnoli, G .; Gino, D .; Martinelli, E . (2016) Prestressing of simply supported composite bridges: a cost-benefit analysis. In: XIII International Conference on Metal Structures (CMS2016), Zielona Gora, 15-17 June 2016. pp. 149-158.
 18. Mancini, G; Bertagnoli, G; Gino, D; Malavisi, M; Pasqualini, A (2016) Use of coal fly ash in concrete mixtures for pavements foundations. In: Italian Concrete Days Giornate AICAP 2016 Congresso CTE, Roma, 27-28 ottobre 2016. pp. 1-9.
 19. Bertagnoli, Gabriele; Giordano, Luca; La Mazza, Dario; Mancini, Giuseppe (2016) Use of different numerical models to evaluate the robustness of reinforced concrete frame structures. In: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016, Praga (Repubblica Ceca), 13–17 June 2016. pp. 1013-1017.
 20. Bertagnoli, Gabriele; Mancini, Giuseppe (2015) Effect of Endogenous Deformations in Composite Bridge Beams. In: 16th European Bridge Conference, Edinburgh, Scotland, 23rd - 25th June 2015. pp. 1-13.
 21. Bertagnoli, Gabriele; La Mazza, Dario; Mancini, Giuseppe (2015) Effect of concrete tensile strength in non linear analyses of 2D structures - a comparison between three commercial finite element softwares. In: 3rd International Conference on Advances in Civil, Structural and Construction Engineering - CSCE 2015, Roma, 10-11December,2015. pp. 104-111.
 22. Bertagnoli, Gabriele; Gino, Diego; Martinelli, Enzo (2015) Predicting early age cracking of steel-concrete composite beams in partial interaction. In: XXV Congresso C.T.A: Le giornate italiane della costruzione in acciaio, Salerno, 1-3 Ottobre 2015. pp. 499-506.
 23. Bertagnoli, G.; La Mazza, D.; Mancini, G. (2015) Rain-Wind Induced Vibrations in Stay Cables: a Parametric Study. In: 16th European Bridge Conference, Edinburgh, Scotland, 23rd – 25th June 2015. pp. 1-10.
 24. Bertagnoli, G.; Mancini, G.; La Mazza, D. (2015) Stay cables vibrations due to rain-wind interaction: a sensitivity study. In: Third International Conference on Advances in Civil, Structural and Mechanical

- Engineering- CSM 2015, Birmingham City University (City North Campus), Perry Barr, Birmingham B42 2SU, UNITED KINGDOM, 26 - 27 May,2015. pp. 38-45
25. Mancini G., Allaix D.L., Bertagnoli G. (2014) Comparison between safety formats in nonlinear analysis of a reinforced concrete structure. In: 9th International DIANA Users Meeting, Parma, 4/5-NOVEMBER-2014.
 26. Bertagnoli G., Giordano L., Mancini G. (2014) Forma Chiusa per l'Ottimizzazione dell'Armatatura in Strutture in Calcestruzzo soggette a Stati Piani di Tensione. In: Giornate Aicap 2014 - 27° Convegno Nazionale, Bergamo, 22-24 Maggio 2014. pp. 681-688
 27. Allaix D.L., Bertagnoli G., Carbone V.I., Mancini G. (2014) A comparison of finite element solutions for 2d reinforced concrete structures. In: The Fourth International fib Congress 2014, Mumbai, 10-14 febbraio 2014. pp. 265-269.
 28. Bertagnoli G., Giordano L., Mancini S. (2014) A hybrid genetic algorithm for skew reinforcement minimization in concrete shell finite elements. In: OPT-i. 1st International Conference on Engineering and Applied Sciences Optimization, Kos Island, 4- 6 June 2014. pp. 1194-1204.
 29. Bertagnoli G., Giordano L., Mancini G., Tondolo F. (2013) Optimum Reinforcement Design in Concrete Membrane Elements. In: fib Symposium Tel Aviv 2013, Tel Aviv, 22-24 aprile 2013. pp. 189-192.
 30. Bertagnoli G., Giordano L., Mancini S. (2013) Skew Reinforcement Optimization in Concrete Shells subject to Uncertain Loading Conditions. In: The Third International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering, Cagliari, 3-6 September 2013. pp. 1-19.
 31. Bertagnoli G., Giordano L., Mancini S. (2013) A bi-level heuristic for skew reinforcement in concrete shells subjected to different loading conditions. In: XXI Congresso Associazione Italiana di Meccanica Teorica e Applicata, Torino, 17-20 settembre 2013. pp. 1-10.
 32. Bertagnoli G., Mancini G. (2012) Autogenous deformations in massive concrete structures. In: RILEM-JCI International Workshop on Crack Control of Mass Concrete and Related Issues concerning Early-Age of Concrete Structures - CONCRACK 3 - Control of Cracking in Concrete Structures 3, Paris, 15-16 March 2012. pp. 167-180.
 33. G. Bertagnoli, L. Giordano, S. Mancini (2012) Optimum Reinforcement Design of Concrete Shell Elements by means of a Genetic Algorithm. In: ESMC-2012 8th European Solid Mechanics Conference, Graz, July 9th-13th, 2012.
 34. Bertagnoli G., Mancini G., Recupero A., Spinella N. (2010) Finite element modeling of beams under prevalent shear actions. In: Third fib Congress and Exhibition, Washington, D.C. (USA), 29 May- 2 June 2010.
 35. Bertagnoli G.; Mancini G (2008) Modellazione resistente dei solai alveolari. In: Congresso C.T.E, Roma, 5-8/11/2008.
 36. Bertagnoli G.; Mancini G (2008) On the maximum punching shear resistance adjacent to the column. In: Symposium in honour of Prof. Toniolo, Milano, 5-12-2008.
 37. Bertagnoli G.; Mancini G; Tondolo F (2007) Early age cracking of massive concrete piers. In: fib Symposium "Concrete structures - Stimulators of development", Dubrovnik, 20-23 May 2007. pp. 41-56.
 38. Bertagnoli G.; Carbone V.I; Mancini G (2007) Local effects of coupling of prestressing tendons in structural joints. In: fib Symposium "Concrete structures - Stimulators of development", Dubrovnik, 20-23 May 2007. pp. 607-614.
 39. Bertagnoli G.; Mancini G; Tondolo F (2007) Modelling R.C. Structures in presence of reinforcement corrosion. In: International RILEM Workshop on Integral Service Life Modelling of Concrete Structures, Guimares, 05-06/11/2007. pp. 247-254.

40. Bertagnoli G.; Mancini G; Tondolo F (2006) Bond deterioration due to corrosion and actual bearing capacity. In: second fib congress, Naples, June 5-8 2006.
41. Rossetti R; Bertagnoli G.; Garlone G; Antoniotti E. Padovani C; Fiorio S (2006) Comportamento a rottura di plinto a pozzetto prefabbricato. In: 16° Congresso C.T.E, 9-11/11/2006.
42. Bertagnoli G; Mancini G. (2006) Non linear finite element for reinforced concrete structures in plane stress. In: 6th International PhD Symposium in Civil Engineering, Zurigo, 23-26/08/2006.
43. Bertagnoli, G.; Carbone, V.I.; Giordano, L. (2006) A compact finite element model for N.L. analysis of concrete structures. In: Second fib congress, Naples, June 5-8 2006.
44. G. Bertagnoli; V.I. Carbone; L. Giordano; G. Mancini (2004) Coupling of prestressing tendons in segmental construction. In: fib Symposium on Segmental Construction in Concrete - Delhi, 26-29 Novembre.
45. G. Bertagnoli; Carbone V.I.; L. Giordano; Mancini G (2004) Progetto delle zone di accoppiamento dei cavi di precompressione. In: Giornate Aicap 2004 - Verona, Verona, 26-29 Maggio. pp. 35-42.
46. Bertagnoli G.; Carbone V.I; Giordano L; Mancini G (2004) Safety format for non-linear analysis. In: fib Symposium 2004, Avignon, 26-28 April 2004.
47. Bertagnoli G; Carbone V.I.; Giordano L; Mancini G (2003) Crack width control in two dimensional reinforced concrete elements. In: ISEC - 02 Second International Conference on Structural Engineering Construction, Rome, 23-26 September 2003. pp. 721-727.
48. Bertagnoli G.; Carbone V.I; Giordano L; Mancini G (2003) Design models for deteriorated concrete bridges. In: ISEC - 02 Second International Conference on Structural Engineering Construction, Rome, 23-26 September 2003. pp. 1777-1781.
49. Bertagnoli G; Carbone V.I.; Giordano L; Mancini G (2003) Skew reinforcement design in reinforced concrete two dimensional elements. In: Second International Specialty Conference on the Conceptual Approach to Structural Design, Milan, 1-2 July 2003. pp. 283-290.
50. Bertagnoli G; Carbone V.I.; Giordano L; Mancini G (2002) Controllo dell'apertura delle fessure in elementi bidimensionali in c.a. In: Giornate AICAP 2002, Bologna, 6-8 Giugno 2002. pp. 53-60
51. G. Bertagnoli; V.I. Carbone; Giordano L.; G. Mancini (2002) Skew reinforcement design in reinforced concrete two dimensional elements. In: 2nd International Specialty Conference on The Conceptual Approach To Structural Design, Milan, 1-2 July 2002.
52. Bertagnoli G.; Carbone V.I.; Giordano L.; Mancini G. (2001) Repair and strengthening of damaged prestressed structures. In: FIB workshop, Ghent (BEL), 15-16 November 2001. pp. 139-153.

Patents

1. Bertagnoli G. (Inventor); Safecertifiedstructure Ingegneria s.r.l. (Company). Metodo e dispositivo d'indagine per la misurazione di tensioni in una struttura di agglomerato. Italia: Ministero dello Sviluppo Economico - Ufficio Italiano Brevetti e Marchi, Domanda numero 102016000037314, Presented: 12/04/2016
2. Abbasi M.; Bertagnoli G.; Caltabiano D.; Guidetti E. (Inventors); ST Microelectronics s.r.l. (Company). Sensore di sforzo per il monitoraggio dello stato di salute di strutture fabbricate quali costruzioni, edifici, infrastrutture e simili. Italia: Ministero dello Sviluppo Economico - Ufficio Italiano Brevetti e Marchi, Presented: 20/04/2017

Peer Review activity

Peer review activity for the following international journals is done:

Journal of Constructional Steel Research – Elsevier – ISSN 0143974X
 Journal of Bridge Engineering – ASCE – ISSN 1084-0702

Materials and structures – Springer – ISSN 1359-5997
Strain - John Wiley & Sons Ltd - Online ISSN: 1475-1305
Structural Engineering and Mechanics – TecnoPress – ISSN 1225-4568
Structural Concrete – *fib* – ISSN 1464-4177

Participation to international scientific organizations

Deputy Member of the Italian delegation *fib* (Fédération Internationale du Béton) General Assembly
From June 2011 to June 2016

Member of *fib* (Fédération Internationale du Béton) Task Group 3.3 "Assessment/evaluation procedures for existing structures" (formerly SAG7)
From April 2010 to Present

Member of *fib* (Fédération Internationale du Béton) Task Group 2.6 "Composite steel-concrete construction" (formerly SAG6)
From June 2010 to Present

Technical Secretary of CEN TC 250
Collaboration and support to Project Team of TC250 during the release of EN1992-2 Eurocode 2-2: Design of Concrete structures - Part 2 - Concrete Bridges
From January 2004 to December 2007

Academic honours and awards

6th International PhD Symposium (Zurich) 2006

Organized by *fib* (Fédération Internationale du béton) and ETH Zurich

Best Ph.D. Thesis of 2006 in the field of concrete structures.

First Prize for the contribution "Nonlinear Finite Element for Reinforced Concrete Structures in Plane Stress".

Participation to Conferences and Congresses

Gabriele Bertagnoli presented 21 memories in 16 conferences and congresses:

WCMAUS 2018 - World Multidisciplinary Civil Engineering Architecture Urban Planning Symposium, Prague, 12-16 June 2018.

- 1) Probabilistic assessment of laps and anchorages strength in reinforced concrete structures.
- 2) Calcium Sulfoaluminate based Concrete Mechanical Characterization.
- 3) Model uncertainties in f.e.m. analyses of punching failures of concrete slabs

WCMAUS 2017 - World Multidisciplinary Civil Engineering Architecture Urban Planning Symposium, Prague, 12-16 June 2017.

- 4) Prediction of cracking induced by indirect actions in R.C. structures.
- 5) Autogenous crack control during construction phases of MOSE Venice dams.

3rd International Conference on Advances in Civil, Structural and Construction Engineering - CSCE 2015, Roma, 10-11 December 2015

- 6) Effect of concrete tensile strength in nonlinear analyses of 2D structures - a comparison between three commercial finite element softwares.

16th European Bridge Conference, Edinburgh, 23 - 25 June 2015

- 7) Effect of Endogenous Deformations in Composite Bridge Beams
- 8) Rain-Wind Induced Vibrations in Stay Cables: a Parametric Study

9th International DIANA users meeting, Parma, 4-5 November 2014

- 9) Comparison between safety formats in nonlinear analysis of a reinforced concrete structure

fib Symposium Tel Aviv 2013, Tel Aviv, 22-24 April 2013

- 10) Optimum Reinforcement Design in Concrete Membrane Elements

ACES Workshop, Corfù, 10-12 October 2010

- 11) Orthotropic Model for the Analysis of Beams with Corrugated Steel Webs

7th International DIANA Users Meeting, Brescia, 17 June 2010

- 12) Autogenous deformations analysis in MOSE concrete caissons.

3rd *fib* Congress and Exhibition, Washington, D.C. (USA), 29 May - 2 June 2010

- 13) Finite element modelling of beams under prevalent shear actions.

Symposium in honour of Prof. Toniolo, Milano, 5 December 2008.

- 14) On the maximum punching shear resistance adjacent to the column.

Congresso C.T.E, Roma, 5-8 November 2008

- 15) Modellazione resistente dei solai alveolari.

fib Symposium "Concrete structures - Stimulators of development", Dubrovnik, 20-23 May 2007

- 16) Local effects of coupling of prestressing tendons in structural joints.
- 17) Early age cracking of massive concrete piers.

16^o Congresso C.T.E, Parma, 9-11 November 2006

- 18) Comportamento a rottura di plinto a pozzetto prefabbricato.

6th International PhD Symposium in Civil Engineering, Zurigo, 23-26 August 2006

- 19) Non linear finite element for reinforced concrete structures in plane stress.

2nd *fib* congress, Napoli, 5-8 June 2006

- 20) A compact finite element model for N.L. analysis of concrete structures.

ISEC-02 2nd International Conference on Structural Engineering Construction, Roma, 23-26 September 2003

- 21) Skew reinforcement design in reinforced concrete two dimensional elements.

Teaching Experience

Assistant professor at Politecnico di Torino

Bridge Design - Civil Engineering Course – Master Degree - Politecnico di Torino

Academic years: 2018/19 2017/18

Architectural shapes in structural engineering - Architecture and Design Course - Master Degree
Politecnico di Torino

Academic year: 2018/19 2017/18 2016/17 2015/16 2014/15

Structural conceptual design - Architecture and Design Course – Bachelor Degree - Politecnico di Torino
Academic year: 2013/14

Elements of structural analysis - Architecture and Design Course – Bachelor Degree - Politecnico di Torino
Academic year: 2012/13

Structural design II – Building Engineering Course – Master Degree - Politecnico di Torino
Academic years: 2011/12 - 2010/11

Computer aided structural design - 1st Architecture Faculty – Bachelor Degree - Politecnico di Torino
Academic year: 2006/07

Lecturer at Politecnico di Torino

Bridge Design - Civil Engineering Course - Master Degree - Politecnico di Torino
Academic years: 2016/2017 2015/2016 2014/2015 - 2013/14 – 2012/13 – 2011/12 - 2010/11 - 2009/10 - 2008/09 - 2006/07 - 2005/06

Design of concrete structures - Civil Engineering Course - Master Degree - Politecnico di Torino
Academic year: 2014/2015 2013/2014 - 2012/13

Computer aided design of structures - Civil Engineering Course - Master Degree - Politecnico di Torino
Academic years: 2017/2018 - 2016/2017 - 2015/2016 - 2014/2015 - 2013/2014 - 2012/13 – 2009/10 – 2008-09 - 2006/07 - 2002/03 - 2001/02

Structural design – Civil Engineering Course - Bachelor Degree - Politecnico di Torino
Academic years: 2015/2016 2010/11 – 2008/09 - 2006/07 - 2003/04

Structural design – Civil Engineering for Water Management Course – Bachelor Degree - Politecnico di Torino, (Mondovì)
Academic year: 2004/05

Structural modelling and analysis – Applied Mathematics for Engineering Course – Master Degree - Politecnico di Torino
Academic year: 2003/04

Design of structures – Civil Engineering Course - Master Degree - Politecnico di Torino
Academic year: 2002/03

Structural design – Building Engineering Course - Bachelor Degree - Politecnico di Torino
Academic years: 2002/03 - 2001/02

Structural design – 1st Architecture Faculty - Bachelor Degree - Politecnico di Torino
Academic years: 2002/03 - 2001/02 – 2000/01

Assistant professor at TTPU Tashkent

Structural Design - Civil Engineering Course - Bachelor Degree - TTPU Tashkent
Academic year: 2018/19 2017/18

Other teaching experiences

Post-laurea Master of Politecnico di Torino: **Design and construction of tall buildings**, 3 hours, in partnership with Intesa Sanpaolo and Camera di commercio di Torino.
January 2014

BASF course: **Technology of concrete - XXII Edition**, 2 hours, Treviso, Italy.
April 2010

fib course: **Design of prestressed concrete bridges**, 6 hours, Tel Aviv, Israel.
September 2009.

Rose-School course: **Seismic design of bridges**, 12 hours, Pavia, Italy.
April 2008.

fib Course: **Prestressed concrete bridges – materials, technologies and design**, 3 hours, Zagreb, Croatia.
January 2008.

Academic internships

Gabriele Bertagnoli is the advisor for academic internships in Civil Engineering since June 2014.

Ph.D. Thesis Supervisor

Gabriele Bertagnoli is or has been supervisor of 3 Ph.D. thesis in Structural Engineering:

1. Gino D.; "Reliability-based evaluation of bond strength for tensed lapped joints and anchorages in reinforced concrete structures"; Dottarato in Ingegneria delle Strutture del Politecnico di Torino, XXXI Ciclo.
From 01-11-2015
2. Malavisi M.; "Innovative Structural Health Monitoring Techniques for Civil Infrastructures"; Dottarato in Ingegneria Civile ed Ambientale del Politecnico di Torino, XXXII Ciclo.
From 01-11-2016
3. Anerdi C.; il Dottarato in Ingegneria Civile e Ambientale del Politecnico di Torino, XXXIII Ciclo.
From 01-11-2017

Master Degree Thesis Supervisor

Gabriele Bertagnoli has been supervisor of 66 Master Degree thesis in Civil or Building Engineering and Architecture:

2019

1. Verifica di un ponte esistente in calcestruzzo armato precompresso alla luce della metodologia proposta dal fib Bulletin 80 / Simone Cimetta; rel. Bertagnoli G., Castaldo P., Gino D., Torino 17/04/2019.
2. Modellazione fem di una diga ad arco in calcestruzzo al fine del monitoraggio strutturale / Luciano Stivala; rel. Bertagnoli G., Torino 17/04/2019.
3. Numerical Modelling and Model Updating Based on Experimental Modal Parameters of Ceira Viaduct / Fabio Lucchetta, rel. Bertagnoli G., Torino 17/04/2019.
4. Fessurazione discreta di tiranti in c.a. soggetti a deformazioni impresse / Giovanni Ferraina, rel. Bertagnoli G., Torino 17/04/2018.

2018

5. Analisi strutturale e verifica delle strutture originali dello Stadio Olimpico di Torino / Andrea Brancatelli; rel. Bertagnoli G., Torino 07/12/2018
6. Monitoraggio strutturale dinamico di un ponte in c.a.: analisi delle vibrazioni di cavi da precompressione esterna con tecniche di operational modal analysis / Monica Longo; rel. Bertagnoli G., Malavisi M., Torino 07/12/2018
7. Algoritmi genetici per la valutazione delle spinte del terreno su rivestimenti di gallerie a partire da risultati di sistemi di monitoraggio / Francesco Marino; rel. Bertagnoli G., Torino 07/12/2018.
8. La Montagna abitata. Progetto di rifunionalizzazione del complesso Helicoide a Caracas, Venezuela / Erika Josefina Franco Gonzales; rel. Ocelli C., Palma R., Bertagnoli G., Torino 25/07/2018.
9. Assessment of aleatory and model uncertainties for non-linear analysis of slender reinforced concrete members / Michele Virdis; rel. Bertagnoli G., Castaldo P., Gino D., Torino 18/07/2018.
10. Analisi degli effetti delle fasi costruttive e della precompressione sul comportamento a fatica di impalcati da ponte a struttura mista acciaio-calcestruzzo / Massimo Bettiga; rel. Bertagnoli G., Torino 27/03/2018.
11. Numerical models of punching shear of reinforced slabs without shear reinforcement / Benedetto La Fauci; rel. . Bertagnoli G., Torino 27/03/2018.

2017

12. Studio di un prototipo di sensore di pressione innovativo per strutture in cemento armato / Angelo Falletta; rel. Gabriele Bertagnoli, Marzia Malavisi, Torino 01/12/2017.
13. Instabilità di profili sottili in acciaio: confronto tra f.e.m. e f.s.m. / Barriga Baquero José Ignacio; rel. Luca Giordano, Gabriele Bertagnoli, Torino 01/12/2017.
14. Analysis of stage construction and external prestressing effects on composite bridge / Andrea Coronati; rel. Gabriele Bertagnoli, Torino 01/12/2017.
15. Edifici multipiano con struttura in legno, progettazione di un caso studio in accordo alla normativa tecnica europea / Francesco Calò; rel. Gabriele Bertagnoli, Torino 12/10/2017.
16. Prestazioni sismiche di ponti a travata isolati con FPS / Pasquale Carratta; rel. Paolo Castaldo, Gabriele Bertagnoli, Torino 12/10/2017.
17. Sensori MEMS applicati al monitoraggio strutturale: trattamento e analisi dei dati / Domenico De Lorenzo; rel. Gabriele Bertagnoli, Marzia Malavisi, Torino 12/10/2017.
18. Numerical Methods for cold-formed steel members design / Luca Di Federico; rel. Luca Giordano, Gabriele Bertagnoli, Torino 12/10/2017.
19. Ponti misti acciaio calcestruzzo: confronto tra diversi sistemi costruttivi / Cesare La Ferla; rel. Luca Giordano, Gabriele Bertagnoli, Torino 17/07/2017.
20. Il BIM per le infrastrutture – Modellazione e analisi strutturale secondo metodologia BIM del viadotto “Pica” S.S. 372 – Telesina / Giuseppe Di Caprio; rel. Anna Osello, Gabriele Bertagnoli, Francesco Semeraro, Torino 16/03/2017.
21. Effetti della precompressione sugli impalcati dei ponti misti acciaio - calcestruzzo / Dario Granatiero; rel. Gabriele Bertagnoli, Torino 16/03/2017
22. Modellazione numerica, prototipazione e testing di un isolatore sismico realizzato dal riciclo di PFU. / Stefano Greco; rel. Chiaia B., Bertagnoli G., Torino 16/03/2017

2016

23. Analisi degli effetti di viscosità e ritiro nel nuovo palasport dell'Aquila / Oliviero Cabitza; rel. Gabriele Bertagnoli, Manzone Fabio, Torino; 29/11/2016
24. Lateral-torsional buckling, study of the restraint conditions influence / Luca Odoguardi; rel. Gabriele Bertagnoli, J. Francois Giorgan, Torino; 13/10/2016
25. Effetti della variabilità spaziale e temporale dell'azione combinata di vento e pioggia sulle vibrazioni di stralli da ponte / Luca Pulpo; rel. Gabriele Bertagnoli, Torino; 13/10/2016.
26. Design of an Under-deck cable stayed bridge with composite section / Eleonora Paravano; rel. Gabriele Bertagnoli, Torino; 27/07/2016

27. Studio, analisi e monitoraggio di un ponte ferroviario ad arco in pietra sulla linea Torino-Modane / Davide Tuzi; rel. Giuseppe Ferro, Gabriele Bertagnoli, Torino; 27/07/2016
28. Sviluppo dei sensori per il monitoraggio strutturale di opere in calcestruzzo / Vincenzo Piras; rel. Giuseppe Mancini, Gabriele Bertagnoli, Francesco Tondolo, Torino; 27/07/2016
29. Experimental study of innovative devices for Structural Health Monitoring / Giovanni Anglani; rel. Giuseppe Mancini, Gabriele Bertagnoli, Francesco Tondolo, Torino; 15/03/2016

2015

30. Self restrained cracking in reinforced concrete elements / Costanza Anerdi; rel. Gabriele Bertagnoli, Torino; 2015
31. Comportamento allo S.L.E. e allo S.L.U. di sezioni in c.a.p. realizzate per fasi. / Alessio Manzo; rel. Luca Giordano, Gabriele Bertagnoli, Torino; 01/12/2015
32. Soluzioni di minimo peso per ponti in struttura composita acciaio-calcestruzzo / Simone Parise; rel. Luca Giordano, Gabriele Bertagnoli, Torino; 01/12/2015
33. Progetto di un Centro Agroalimentare per la città di Asti / Andrea Tomasello; rel. Paolo Piantanida, Gabriele Bertagnoli, Torino; 27/10/2015
34. Studio dell'intervento di adeguamento del viadotto Mondalavia, in carreggiata nord, dell'Autostrada A6, Torino Savona / Luca Givonetti; rel. Luca Giordano, Gabriele Bertagnoli, Torino; 13/10/2015
35. Progetto strutturale di un viadotto in acciaio e calcestruzzo da realizzare nel nuovo itinerario a quattro corsie della Strada Statale numero 597 Sassari – Olbia / Ettore Di Maria; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2015
36. Dalle miniere al mare tra ferrovie e ciclostrade: progetto di un bicigrill nell'area estrattiva della Sardegna sud-occidentale / Fabio Calleda, Alice Sotgiu; rel. Riccardo Palma, Chiara Maria Occelli, Gabriele Bertagnoli, Torino; 22/07/2015
37. Progetto strutturale di un viadotto in acciaio e calcestruzzo da realizzare nel nuovo itinerario della strada statale 597 Sassari-Olbia / Ettore Di Maria; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 17/03/2015
38. Effetto degli stati di coazione endogeni su ponti a struttura mista / Diego Gino; rel. G. Bertagnoli, G. Mancini, Torino; 21/07/2015

2014

39. Ponte ad arco a via inferiore con soletta prefabbricata / Raphael Palombaro; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 02/12/2014
40. Fenomeni di instabilità dell'anima di travi da ponte a struttura mista acciaio-calcestruzzo / Davide Boasso; rel. Gabriele Bertagnoli, Luca Giordano, Torino 14/03/2014
41. Vibrazioni indotte negli stralli da ponte da fenomeni di vento e pioggia / Dario La Mazza; rel. Giuseppe Mancini, Gabriele Bertagnoli, Antonino Recupero, Torino; 14/03/2014
42. Studio preliminare per il recupero e l'adeguamento strutturale dei fabbricati nell'area ex-INCET / Simone Michelis; rel. Gabriele Bertagnoli, Torino; 18/03/2014
43. Ampliamento della linea 5 della metropolitana di São Paulo, Brasile: analisi e verifica della struttura in acciaio dell'edificio "A-Oficina de trens" lotto 8 "Pátio Guido Caloi": l'esperienza di tirocinio presso il Consorzio GEODATA s.p.a.; correl. Vitor Levy Castex Aly / Walter Criscolo; rel. Gabriele Bertagnoli, Marco Gerace, Torino; 18/03/2014
44. Analisi non lineare di strutture piane in c.a. con codici di calcolo commerciali / Stefano D'Angelo; rel. Giuseppe Mancini, Gabriele Bertagnoli, Diego Lorenzo Allaix, Torino; 02/12/2014
45. Progetto di un edificio residenziale con struttura XLAM / Sara Picotto; rel. Gabriele Bertagnoli, Torino; 18/03/2014
46. Progettazione di una passerella pedonale sospesa. Design of a suspension footbridge / Luca Petronelli; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino ; 16/07/2014

2013

47. Progetto strutturale di un capannone di una vineria / Caterina Penna; rel. Gabriele Bertagnoli, Torino; 10/12/2013
48. Sistema solare per il processo cartario / Giorgio Salza; rel. Stefano Mauro, Gabriele Bertagnoli, Giuliana Mattiazzo, Ermanno Giorcelli, Torino; 19/03/2013

2012

49. Life cycle assessment di una struttura industriale comparando differenti soluzioni costruttive / Giorgio Clerici; rel. Gabriele Bertagnoli, Torino; 27/11/2012
50. Dominio di resistenza per stati di tensione piana nel cemento armato - Failure surface for plane stress states in reinforced concrete / Davide Ferrero; rel. G. Bertagnoli, L. Giordano, Torino; 2012
51. Isolamento sismico di un viadotto stradale con pendolo a scorrimento / Gnan Sabrina; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2012
52. Progetto di un ponte strallato sul torrente Scrivia / Anna Porro; rel. G. Mancini, G. Bertagnoli, Torino; 27/11/2012
53. Modellazione numerica di strutture piane in c.a. con codici di calcolo commerciali: confronto con risultati sperimentali e analisi delle criticità / Paolo Caffaro; rel. Giuseppe Mancini, Gabriele Bertagnoli, Diego Lorenzo Allaix, Torino; 27/11/2012
54. Le strutture composte acciaio-calcestruzzo / Leonardo Isgrò; rel. Vincenzo Ilario Carbone, Mauro Sommavilla, Gabriele Bertagnoli, Torino; 2012
55. Ottimizzazione dei portali rigidi monopiano in acciaio: calcolo plastico a rottura e approccio ingegneristico al fuoco / Ivan Longis; rel. Vincenzo Ilario Carbone, Mauro Sommavilla, Gabriele Bertagnoli, Torino; 2012
56. Effetti degli stati di coazione endogeni sulle strutture miste / Matteo Pavese; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2012
57. Ponte ad arco sul torrente Maira / Matteo Cherasco; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2012

2011

58. Dimensionamento e verifica di fondazioni superficiali / Antonella Ricaldone; rel. Claudio Scavia, Gabriele Bertagnoli, Torino; 2011

2010

59. Effetti della precompressione esterna su impalcati da ponte misti acciaio-calcestruzzo / Dino Squizzato; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2010
60. Progetto di ponte estradossato a struttura mista / Walter Gramaglia; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2010
61. Ponte strallato curvo / Andrea Gillio; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2010
62. Analysis of external tendons failures in prestressed bridges using the Finite Element Program SOFiSTiK / Kreshnik Shanaj; rel. Giuseppe Mancini, Gabriele Bertagnoli, L. Stempniewski, S. Siegel, Torino; 2010

2009 and before

63. Effetti trasversali nei ponti a cassone / Antonio De Leo; rel. Giuseppe Mancini, Gabriele Bertagnoli, Torino; 2009
64. Analisi dei ponti in dotazione all' Esercito Italiano: applicazione al ponte M.G.B. / Maria La Torre; rel. Giuseppe Mancini, Gabriele Bertagnoli, Gianni Luca Marengo, Torino; 2007
65. Analisi teorico-sperimentale di giunzioni incollate di elementi di legno lamellare / Raffaello Tobia Sorrentino; rel. Roberto Rossetti, Gabriele Bertagnoli, Luigi Tommasini, Torino; 07/03/2006
66. Studio del comportamento a rottura di plinto a pozzetto prefabbricato / Gabriele Garlone; rel. Rossetti Roberto, Gabriele Bertagnoli, Torino; 17/05/2005

Professional experience

Civil Engineer

Civil engineer specialized in structural design with experience in academic research and advanced counselling in the field of structures and infrastructures construction.

January 2001 - Present

Activities

Structural Health Monitoring of Roccaprebalza viaduct on A15 Parma La Spezia highway

Structural monitoring of external prestressing tendons of a highway viaduct interested by corrosion.

September 2017 – Present

Structural Health Monitoring of Val di Sambro Tunnel on A1 Firenze-Bologna highway

Structural monitoring of a highway tunnel interested by a landslide.

July 2016 – Present

Structural Health Monitoring of Sparvo Tunnel on A1 Firenze-Bologna highway

Structural monitoring of a highway tunnel interested by a landslide.

July 2016 – Present

Structural Health Monitoring of Viadotto Italia on A3 Napoli – Reggio Calabria highway

Structural monitoring of a prestressed concrete girder bridge during deck replacement.

February 2016 – April 2016

Structural Health Monitoring of Richardette apartments building in Oulx (TO)

Structural monitoring of a residential building located on a landslide.

October 2015 – April 2018

Design of steel rack for motor-car assembly line in FIAT Mirafiori plant

Design of a steel rack for a new assembly line in a motor car factory.

April 2012 - June 2012

Course for Ordine dei Geometri provincia di Cuneo

Technical course on design of timber structures.

October 2011 - March 2012

Courses for F.lli. Ronco SpA (CN)

Design of steel structures.

September 2008 - June 2009

Foundations of the 5th parcel of the MOI Olympic Village in Turin

Structural design of reinforced concrete foundations and vertical bracing systems for multi-storey buildings.

December 2003 - March 2004

Multiplex Cinema "Lumiere" in Pianezza (Torino)

Design and works direction assistance of reinforced concrete structure.

November 2003 - July 2004

Multi-functional shelter for Alvinu park in Aggius (Sassari)

Structural steel design.

May 2003 - July 2003

Entrance hall of "Villa Azzurra" Hospital in Rapallo

Structural steel design.

February 2003 - April 2003

Bed elevators tower in Acqui Terme Hospital

Structural steel design.

September 2002 - December 2002