

# Stefano De Santis

BEng, MScEng, PhD, CEng

## Curriculum Vitae



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### PERSONAL INFORMATION

Date and place of birth: 28 June 1983, Rome, Italy  
Nationality: Italian  
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### OVERVIEW AND CURRENT POSITION

Stefano De Santis is a post-doc research assistant at the Department of Engineering of Roma Tre University, in Rome, Italy. In this University he got his BSc, MSc and PhD in Civil Engineering. Before getting his current position, he was a post-doc research assistant at the University of the West of England (UWE) at Bristol, UK.

Stefano's scientific interests and expertise include laboratory and field testing of traditional and innovative materials and of full-scale structural members (both unreinforced and reinforced) under static and dynamic/seismic loading, technologies and design methods for the rehabilitation and strengthening of structures in earthquake prone areas with sustainable composites, earthquake engineering, seismic assessment of masonry buildings, arch bridges and historic constructions including those belonging to cultural/architectural heritage, analytical/numerical modelling at material and structure scales, development of testing methods and acceptance criteria for composite materials, development of innovative full-field contactless measurement techniques for laboratory testing, structural health monitoring and condition assessment of structures.

On these topics, which are closely related to Rilem fields of activity and interest, Stefano coordinated several scientific activities involving research and industrial partners. He is author of more than 50 scientific publications including papers in International Journals, conference proceedings, and a book on masonry arch bridges based on his PhD Thesis that received a Special Mention at the Edoardo Benvenuto Award (10th edition, 2012). He presented his works in several national and international conferences and has been invited to give lectures and seminars. Stefano is reviewer of International Journals and has been supervisor of more than 30 PhD and MSc Theses.

In February 2017, Stefano spent a period as a Visiting Researcher at the Department of Civil and Structural Engineering of the University of Sheffield, with a Short Term Scientific Mission grant awarded by the Cost Action TU1207. In October 2016, Stefano has been a visiting researcher at the University of Miami, USA, within a Science and Technology Cooperation Project titled "Composites with inorganic matrix for sustainable strengthening of architectural heritage". Stefano is (or has recently been) involved in International Research Projects and is member of Technical Committees, including the RILEM TC 250-CSM, the RILEM TC 223-MSC, the ASTM D30 Committee, the COST Action TU1207, and the UIC Research Group on Masonry Arch Bridges. Stefano is member of standardization boards, including the ACI 549 - Rilem TC 250 OL Liaison Subcommittee "Design and Construction of Externally Bonded Textile Reinforced Mortar (TRM) and Steel Reinforced Grout (SRG) Systems for Repair and Strengthening Masonry Structures" and the CNR Committee for the development of design recommendations for externally bonded reinforcements with FRCC composites (Gruppo di Studio CNR per la redazione delle Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di sistemi di rinforzo FRCC).

Through the work carried out in the last ten years, Stefano gained high independence and creative thinking skills, expertise in designing research studies and proposals, writing scientific papers and giving oral presentations, capability of positively and fruitfully interact within multidisciplinary and international teams and of coordinating and managing research projects.

### **Activity as editor and reviewer, participation to Scientific Committees of International Conferences**

Stefano is member of the Editorial Board of Frontiers in Materials International Journal.

Stefano regularly contributes as a reviewer to the following Journals: Materials and Structures, Construction and Building Materials, Composite Structures, Composite Part B: Engineering, International Journal of Architectural Heritage, Proceedings of the ICE (Institution of Civil Engineers): Bridge Engineering, Fibers, Engineering Structures, Case Studies in Construction Materials.

Stefano is, or has been, member of the Scientific Committees of the following international conferences:

- SAHC2018 11th International Conference on Structural Analysis of Historical Constructions. Cusco, Peru, 11-13/09/2018
- Baltic Conference Series
- EMAHP2016 Engineering and Medical Aspects of the Humans Protections against Environmental Influences. Cracow, Poland, 16-18/11/2016

### **Participation to scientific and/or institutional Technical Committees**

Stefano is, or has been, involved in the activities of the following Technical Committees:

- Rilem TC 223-MSC Masonry Strengthening with Composites (2008-2012) and Rilem TC 250-CSM Composites for the Sustainable Strengthening of Masonry (2012-present) (Rilem member since 2017).
- CNR (National Research Council) Standardization Committee for the development of design recommendations for externally bonded reinforcements with FRCM composites (Gruppo di Studio CNR per la redazione delle Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di sistemi di rinforzo FRCM) (2017-present)
- ACI 549 - Rilem TC 250 OL Liaison Subcommittee Design and Construction of Externally Bonded Textile Reinforced Mortar (TRM) and Steel Reinforced Grout (SRG) Systems for Repair and Strengthening Masonry Structures (2016-present).
- ASTM International Committee D30 on Composite Materials - Subcommittee D30.10 on Composites for Civil Structures (2017-present).
- Committee of the Board of Engineering of Rome "Engineering applied to architectural and archaeological heritage" (2017-present)
- Committee of the Board of Engineering of Rome "Composite and innovative materials" (2013-2016)
- UIC International Railways Union AMAB RG Assessment of Masonry Arch Bridges (2011-2014).

### **Research projects**

The research activity includes the involvement in several research projects:

- Short Term Scientific Mission "Best practice and key challenges in bond tests on composite reinforcements" with a grant awarded by the Cost Action TU1207 Next generation guidelines for composites in constructions (Grant N. COST-STSM-ECOST-STSM-TU1207-130217-082433).
- ITALY – USA SCIENCE AND TECHNOLOGY COOPERATION 2016-2018 Composites with inorganic matrix for sustainable strengthening of architectural heritage (Topic: Technologies Applied to Cultural and Natural Heritage) (Grant ID PGR00234).
- INDUSE-2-SAFETY RFS-PR-13056 Component fragility evaluation and seismic safety assessment of "special risk" petrochemical plants under design basis and beyond design basis accidents.
- SEQBRI RFSR-CT 2012-00032 Performance-based earthquake engineering analysis of short- medium-span steel-concrete composite bridges.
- SMART ENVironments Integrated methodologies for Seismic Assessment of Cultural Heritage and Sustainable retrofitting strategies.
- ReLUIS 2014-2018 Line 1: Masonry constructions. Line 6: innovative materials for the seismic retrofitting of existing structures.
- COST Action TU1207 2013-2017: Next Generation Design Guidelines for Composites in Construction.
- PRIN 2011-2013: Methodologies for analysis and modelling of multi-leaf masonry walls for the conservation of historic built heritage.
- UIC 2011-2013: Assessment of masonry arch bridges.
- ReLUIS 2010-2013 Line 1: Tools for the assessment and management of the seismic risk of the built heritage.
- EPSRC 2007-2011: Fatigue behaviour and remaining service life of masonry arch bridges.
- ReLUIS 2005-2008 Line 1: Safety assessment and vulnerability reduction of masonry buildings - Line 3: Safety assessment and vulnerability reduction of existing bridges.
- CNR 2008: Guidelines for the structural analysis and the strengthening of masonry bridges.
- PRIN 2003-2005: Safety, conservation and management of masonry bridges.

### ***Invited lectures***

Stefano has been invited to give the following lectures and seminars:

- Invited speaker for the seminars “Experimental characterization of Textile Reinforced Mortars” and “Retrofitting historic structures with Textile Reinforced Mortars” at the University of Sheffield, Sheffield, UK (2017).
- Invited speaker at the meeting of the Edoardo Benvenuto awards. Department of Architecture and Design of the University of Genoa, Italy (2017)
- Invited speaker at the COST Action TU1207 – Rilem TC 250-CSM Joint Workshop. Title: “Out-of-plane strengthening of masonry walls with mortar-based composites” University of Salento, Italy (2015).
- Invited lecturer at the International Masterclass on Masonry Arch Bridge Assessment. Title of the lecture “Assessment of masonry arch bridges with fibre beam models” University of the West of England, Bristol, UK (2012).

### ***Presentations at national and international conferences***

Stefano presented his work at the following conferences:

- MuRiCo5 5th International Conference on mechanics of masonry structures strengthened with composite materials. Bologna, Italy, 28-30 June 2017.
- SAHC'16 10th International Conference on Structural Analysis of Historic Constructions. Leuven, Belgium, 13-16 September 2016.
- 16IB2MAC 16th International Brick&Block Masonry Conference. Padova, Italy, 26-30 June 2016.
- ACE 2015 2nd International Symposium on Advances in Civil Engineering. Vietri sul Mare, Italy, 12-13 June 2015.
- MuRiCo4 4th International Conference on mechanics of masonry structures strengthened with composite materials. Ravenna, Italy, 9-11 September 2014
- PROHITECH'14 2nd International Conference on Protection of Historical Constructions. Antalya, Turkey, 7-9 May 2014.
- ARCH'13 7th International Conference on Arch Bridge. Split, Croatia, 2-4 October 2013.
- WCEE'12 15th World Conference on Earthquake Engineering. Lisbon, Portugal, 24-28 September 2013.
- XIV Convegno di Ingegneria Sismica ANIDIS 2011. Bari, Italy, 18-22 September 2011.
- ARCH'10 6th International Conference on Arch Bridges. Fuzhou, China, 11-13 October 2010.
- Convegno WonderMasonry 2009. Ischia, Italy, 8-10 October 2009.
- XIII Convegno di Ingegneria Sismica ANIDIS 2009. Bologna, Italy, 28 June-2 July 2009
- HMC'08 Historical Mortar Conference. Lisbon, Portugal, 24-26 September 2008.

### ***Major collaborations***

Stefano's research activity includes the following collaborations:

- Prof. Antonio Nanni, University of Miami, Miami, US  
Collaboration on acceptance of Textile Reinforced Mortar (TRM) composites and on design criteria for repair and strengthening existing structures with TRMs
- Prof. Arkadiusz Kwiecien, Cracow University of Technology, Cracow, Poland  
Collaboration on Digital Image Correlation and on composite materials with highly deformable matrices
- Prof. Maurizio Guadagnini, University of Sheffield, Sheffield, UK  
Collaboration on composite materials with natural fibres and on multi-ply steel reinforcements
- ENEA, Italian Agency for New Technologies and Sustainable Development, Italy  
Collaboration for shake table tests on full-scale structures, unconventional optical monitoring systems (3DVision)
- Prof. Thanasis Triantafillou, prof. Corina Papanicolaou  
Collaboration on test methods for the characterization of composite materials
- Dr. Adrienn Tomor, University of the West of England, Bristol, UK  
Mistras NDT Products & Systems, Inc. (Cardiff, UK)  
Collaboration on Acoustic Emission technique and structural health monitoring
- Cooperation with industrial partners (FibreNet srl, G&P Intech srl, Kerakoll SpA, Ruredil SpA) for the development, testing and qualification of composite materials and reinforcement solutions. These activities led to the publication of scientific papers and to the achievement of formal technical qualification certificate for FRP and SRP systems.
- Cooperation with Italian Civil Protection and Italian National Fire Corps for post-earthquake emergency activities related to structural assessment, survey of damage, and design of securing measures on residential and commercial buildings, churches, architectural heritage and monuments.

### ***Professional activity as practicing engineer***

Stefano works as a practicing engineer and is involved in the design of post-earthquake repair, structural rehabilitation and seismic retrofitting of historic masonry buildings and churches. The most important works include, amongst others, Palazzo Ciolina-Ciampella and San Bernardino cathedral in the city centre of L'Aquila, Italy. These activities included structural and crack pattern survey, field tests during the design and the execution phases, numerical modelling of structural members (e.g., vaults, walls, floors) for seismic assessment, design of strengthening works with traditional and innovative technologies, such as mortar-based externally bonded composite materials.

### **Teaching activity and supervision of PhD and postgraduate students**

Stefano has been doing teaching activity since 2005. He has been in charge of exercise lectures within undergraduate and postgraduate courses of Structural Mechanics and Design of Steel and Reinforced Concrete Structures, Rehabilitation of Structures, Design of Bridges, and Earthquake Engineering at the Faculties of Engineering and of Architecture, of Roma Tre University (SSD ICAR/09). The main teaching activities include:

- Teaching assistant, Structural Mechanics and Design of Steel and R.C. Structures (undergraduate course), Faculty of Engineering, Roma Tre University, Rome, Italy (2005-2016)
- Teaching assistant, Earthquake Engineering (postgraduate course) Faculty of Engineering, Roma Tre University, Rome, Italy (2016-2017)
- Teaching assistant, Rehabilitation of Structures (postgraduate course) Faculty of Engineering, Roma Tre University, Rome, Italy (2013-2016)
- Teaching assistant, Design of Bridges (postgraduate course) Faculty of Engineering, Roma Tre University, Rome, Italy (2013-2014)
- Teaching assistant, Design of Steel and R.C. Structures (undergraduate course) Faculty of Architecture, Roma Tre University, Rome, Italy (2012-2013)

Stefano supervised 2 PhD Students (one ongoing and one concluded in the Doctor Europaeus programme, co-supervised by Dr. M. Guadagnini, Univ. of Sheffield, UK) and more than 50 postgraduate students.

Since 2013, Stefano is member of the Commission for the Examination for the professional qualification in Engineering.

## **PREVIOUS EMPLOYMENTS**

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### **Research employments**

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| 2016-2017 | Research assistant at the Department of Engineering, Roma Tre University, within a research project titled "Mortar-based composites for the sustainable strengthening of architectural heritage".   |
| 2017      | Research Contract as Consultant with the Department of Engineering of Roma Tre University "Sperimentazione in situ ed in laboratorio di volte in foglio rinforzate con sistemi Steel Reinforced Grout" (Field and laboratory testing of masonry vaults strengthened with Steel Reinforced Grout systems) (carried out in addition to the main activity as post-doc research assistant).     |
| 2016      | Research Contract as Consultant with the Department of Engineering of Roma Tre University "Controllo di accettazione di Compositi FRCC-Fabric Reinforced Cementitious Matrix" (Qualification and Acceptance of FRCC Composites) (carried out in addition to the main activity as post-doc research assistant).  |
| 2011-2016 | Research assistant at the Department of Engineering, Roma Tre University within a research project titled "Criteria and methodologies for the seismic assessment of masonry structures".  |
| 2015      | Research Contract as Consultant with the Department of Engineering Roma Tre University "Numerical simulations for fragility curves evaluation of steel storage tanks" (carried out in addition to the main activity as post-doc research assistant).  |
| 2011      | Research assistant at UWE (University of the West of England) at Bristol. The research activity was related to a 3-year research project on "Fatigue behaviour and remaining service life of masonry arch bridges" and focused on experimental tests on the fatigue strength of masonry and on the condition assessment of masonry bridges with the acoustic emission monitoring technique. |
| 2007-2010 | Ph.D. in Science of Civil Engineering. Roma Tre University, Department of Structures. Title of the Doctoral Thesis: "Load carrying-capability and seismic assessment of masonry bridges". Position provided with a 3-year scholarship.  |

## EDUCATION AND PROFESSIONAL LICENCES

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### **Education**

- 2007-2011 Ph.D. in Civil Engineering. Roma Tre University, Department of Structures. Title of the Doctoral Thesis: "Load carrying-capability and seismic assessment of masonry bridges". 11 April 2011. The Ph.D. Thesis was awarded with a special mention in the final judgement of the jury of the Edoardo Benvenuto Prize (10th Edition, year 2012).
- 2005-2007 Master's Degree in Engineering for the Protection of Territory from Natural Risks – Specialization Area: Structures and Seismic Risk, Roma Tre University. Mark: 110/110 cum Laude. Title of the thesis: "Modelling of masonry walls as thin plates". Homogenization and limit analysis of periodic masonry walls. 4 October 2007.
- 2002-2005 Bachelor's Degree in Civil Engineering – Specialization Area: Civil Buildings, Roma Tre University. Mark: 110/110 cum Laude. Title of the thesis: "Analysis of masonry elements subjected to eccentric axial load through the fiber beam model: determination of material properties". Experimental investigation and numerical modelling in of arch bridge historic masonry. 28 September 2005.
- 2002 High school leaving qualifications, Senior high school specializing in science education "Amedeo Avogadro", Rome. Mark: 100/100.
- 2001 Stefano was selected to take part to a cultural exchange agreement between Italy and USA and spent 1 month in Pittsburgh, PA, USA as an exchange student.

### **Other titles**

- 2007 GRE (Graduate Record Examination) General Test, ETS. Mark: 800/800 Quantitative section (94 percentile) and 550/800 Verbal section (80 percentile).
- 2007 TOEFL (Test of English as a Foreign Language), ETS. 104/120.
- 2002 FCE (First Certificate in English), University of Cambridge. Mark: Grade B.  
Trinity College of London: Grade 7 (1998), 6 (1997), 5 (1996), 4 (1995), 3 (1994).

### **Professional licences**

- 2009 Licence to the professional activity of Civil and Environmental Engineer (February 2008). Stefano is registered in the Board of Engineers of Rome, Section A (Civil and Environmental Engineering) at n. 30084 (19/01/2009).

### **Scholarships**

- 2007-2010 3-year Ph.D. scholarship

## LANGUAGE SKILLS

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- English: fluent knowledge of both written and spoken language (FCE and TOEFL exams).
- French: basic knowledge of written and spoken language.

## POST-GRADUATE/DOCTORAL-LEVEL COURSES ATTENDED

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- 2015 • Seismic Assessment of Masonry Structures (Rome).
- 2011 • Scientific and technical calculus in C++ progr. lang. - Caspur HPC High Performance Computing (Rome).
- 2010 • Masonry Arch Bridges Masterclass - University of the West of England (Bristol).  
• Scientific and technical calculus in C progr. lang. - Caspur HPC High Performance Computing (Rome).  
• Matlab for the scientific calculus - Caspur HPC High Performance Computing (Rome).
- 2009 • Numerical methods in seismic engineering - CISM (Udine).  
• Masonry Constructions. Modeling, seismic reliability and conservation of ordinary and monumental buildings (Rome).
- 2008 • Finite elements - Prof. V. Ciampi, Dott.ssa D. Addessi (Rome).  
• Experimental and numerical methods in seismic engineering - Prof. O. Bursi (Trento).  
• Non-linear analysis - Prof. V. Ciampi, Dott.ssa D. Addessi (Rome).  
• Arch bridges - Prof. R. Di Marco (Rome).  
• A variational approach to fracture mechanics - Prof. J.J. Marigo (Rome).  
• Aleatory dynamics - Prof. R. Giannini (Rome).

### ***International Referred Journals***

- 2018 De Santis S., Roscini F., de Felice G. Full-scale tests on masonry vaults strengthened with Steel Reinforced Grout. *Composites Part B: Engineering* 2018;141:20-36. DOI: 10.1016/j.compositesb.2017.12.023.
- 2017 Di Ludovico M., Digrisolo A., Graziotti F., Moroni C., Belleri A., Caprili S., Carocci C., Dall'Asta A., De Martino G., De Santis S., Ferracuti B., Ferretti D., Fiorentino G., Mannella A., Marini A., Mazzotti C., Sandoli A., Santoro A., Silvestri S., Sorrentino L., Magenes G., Masi A., Prota A., Dolce M., Manfredi G. The contribution of ReLUIs to the usability assessment of school buildings following the 2016 central Italy earthquake. *Bollettino di Geofisica Teorica ed Applicata*. DOI: 10.4430/bgta0192.
- De Santis S. Bond behaviour of Steel Reinforced Grout for the extrados strengthening of masonry vaults. *Construction and Building Materials* 2017;150:367-382. DOI: 10.1016/j.conbuildmat.2017.06.010.
- Caggegi C., Carozzi F.G., De Santis S., Fabbrocino F., Focacci F., Hojdys L., Lanoye E., Zuccarino L. Experimental analysis on tensile and bond properties of PBO and Aramid fabric reinforced cementitious matrix for strengthening masonry structures. *Composites Part B: Engineering*, 2017;127:175-195. DOI: 10.1016/j.compositesb.2017.05.048.
- Lignola G.P., Caggegi C., Ceroni F., De Santis S., Krajewski P., Lourenço P.B., Morganti M., Papanicolaou C., Pellegrino C., Prota A., Zuccarino L. Performance assessment of basalt FRCM for retrofit applications on masonry. *Composites Part B: Engineering*, 2017;128:1-18. DOI: 10.1016/j.compositesb.2017.05.003.
- De Santis S., Ceroni F., de Felice G., Fagone M., Ghiassi B., Kwiecień A., Lignola G.P., Morganti M., Santandrea M., Valluzzi M.R., Viskovic A. Round Robin Test on tensile and bond behaviour of Steel Reinforced Grout systems. *Composites Part B: Engineering*, 2017;127:100-120. DOI: 10.1016/j.compositesb.2017.03.052.
- De Santis S., Carozzi F.G., de Felice G., Poggi C. Test methods for Textile Reinforced Mortar systems. *Composites Part B: Engineering*, 2017;127:121-132. DOI: 10.1016/j.compositesb.2017.03.016.
- de Felice G., De Santis S., Lourenço P.B., Mendes N. Methods and challenges for the seismic assessment of historic masonry structures. *International Journal of Architectural Heritage*, 2017;11(1):143-160. DOI: 10.1080/15583058.2016.1238976.
- Tekieli M., De Santis S., de Felice G., Kwiecień A., Roscini F. Application of Digital Image Correlation to composite reinforcements testing. *Composite Structures*, 2017;160:670-688. DOI: 10.1016/j.compstruct.2016.10.096.
- 2016 De Santis S., Napoli A., de Felice G., Realfonzo R. Strengthening of structures with Steel Reinforced Polymers: A state-of-the-art review. *Composites Part B: Engineering*, 2016;104:87-110. DOI: 10.1016/j.compositesb.2016.08.025.
- Napoli A., de Felice G., De Santis S., Realfonzo R. Bond behaviour of Steel Reinforced Polymer strengthening systems. *Composite Structures* 2016;152:499-515. DOI: 10.1016/j.compstruct.2016.05.052.
- De Canio G., de Felice G., De Santis S., Giocoli A., Mongelli M., Paolacci F., Roselli I. Passive 3D motion optical data in shaking table tests of a SRG-reinforced masonry wall. *Earthquakes and Structures*, 2016;10(1):53-71. DOI: 10.12989/eas.2016.10.1.053.
- Sarhosis V., De Santis S., de Felice G. A review of experimental investigations and assessment methods for masonry arch bridges. *Structure and Infrastructure Engineering*, 2016;12(11):1439-1464. DOI: 10.1080/15732479.2015.1136655.
- De Santis S., Casadei P., De Canio G., de Felice G., Malena M., Mongelli M., Roselli I. Seismic performance of masonry walls retrofitted with steel reinforced grout. *Earthquake Engineering and Structural Dynamics*, 2016;45(2):229-251. DOI: 10.1002/eqe.2625.
- de Felice G., Aiello M.A., Bellini A., Ceroni F., De Santis S., Garbin E., Leone M., Lignola G.P., Malena M., Mazzotti C., Panizza M., Valluzzi M.R. Experimental characterization of composite-to-brick masonry shear bond. *Materials and Structures*, 2016;49(7):2581-2596. DOI: 10.1617/s11527-015-0669-4.
- Kwiecień A., de Felice G., Oliveira D.V., Zając B., Bellini A., De Santis S., Ghiassi B., Lignola G.P., Lourenço P.B., Mazzotti C., Prota A. Repair of composite-to-masonry bond using flexible matrix. *Materials and Structures*, 2016;49(7):2563-2580. DOI: 10.1617/s11527-015-0668-5.
- 2015 De Santis S., de Felice G. Steel reinforced grout systems for the strengthening of masonry structures. *Composite Structures*, 2015;134:533-548. DOI: 10.1016/j.compstruct.2015.08.094.
- Ascione, L., de Felice, G., De Santis S. A qualification method for externally bonded Fibre Reinforced Cementitious Matrix (FRCM) strengthening systems. *Composites Part B: Engineering*, 2015;78:497-506. DOI: 10.1016/j.compositesb.2015.03.079.
- De Santis S., de Felice G. Tensile behaviour of mortar-based composites for externally bonded

- reinforcement systems. *Composites Part B: Engineering*, 2015;68:401-413. DOI: 10.1016/j.compositesb.2014.09.011.
- 2014 de Felice G., De Santis S., Garmendia L., Ghiassi B., Larrinaga P., Lourenço P.B., Oliveira D.V., Paolacci F., Papanicolaou C.G. Mortar-based systems for externally bonded strengthening of masonry. *Materials and Structures*, 2014;47(12):2021-2037. DOI: 10.1617/s11527-014-0360-1.
- De Santis S., de Felice G. A fibre beam based approach for the evaluation of the seismic capacity of masonry arches. *Earthquake Engineering and Structural Dynamics*, 2014;43(11):1661-1681. DOI: 10.1002/eqe.2416.
- De Santis S., de Felice G. Overview of railway masonry bridges with safety factor estimate. *International Journal of Architectural Heritage*, 2014;8(3):452-474. DOI: 10.1080/15583058.2013.826298.
- 2013 Tomor A.K., De Santis S., Wang J. Fatigue deterioration process of brick masonry. *Masonry International*, 2013;26(2):41-48.
- De Santis S., Tomor A.K. Laboratory and field studies on the use of acoustic emission for masonry bridges. *NDT & E International*, 2013;55:64-74. DOI: 10.1016/j.ndteint.2013.01.006.
- 2010 de Felice G., De Santis S. Experimental and numerical response of arch bridge historic masonry under eccentric loading. *International Journal of Architectural Heritage*, 2010;4(2):115-137. DOI: 10.1080/15583050903093886.

### **National Journals**

- 2016 de Felice G., De Santis S. Il rinforzo delle volte in laterizi con sistemi SRG. *Compositi magazine* 2016;40:50-55.
- 2015 Carozzi F.G., de Felice G., De Santis S., Poggi C. Materiali compositi a matrice inorganica (FRCM) per il rinforzo di strutture in muratura. Round Robin Test per la caratterizzazione meccanica. *Compositi magazine* 2015;37:23-26.
- 2009 de Felice G., De Santis S., Martinelli A., Petracca A. 2009. Palazzo Ciolina a L'Aquila. Speciale Monumenti Dannati. Università sul campo: il come e il perché dei danni a 48 monumenti in Abruzzo. *Il giornale dell'arte*, Ottobre 2009.

### **Books / Research Monographs**

- De Santis S. 2015. Load carrying capacity and seismic behaviour of masonry arch bridges. From experimental testing to structural assessment. Scholars' Press: Saarbrücken, Germany. ISBN: 978-3-639-51179-6.

### **Contributions to Books**

- de Felice G., De Santis S., Martinelli A., Petracca A. 2012. Palazzo Ciolina a L'Aquila. In: *L'università e la ricerca per l'Abruzzo: il patrimonio culturale dopo il terremoto del 6 Aprile 2009*. Ed. Textus. ISBN: 978-8-887-13280-9.

### **National and International Conference Proceedings**

- 2017 Roscini F., De Santis S., de Felice G. Evaluation of the bond behaviour of Steel Reinforced grout applied to curved masonry substrate via bending test. Proc. Int. Conf. PROHITECH'17 3rd International Conference on Protection of Historical Constructions. Lisbon, Portugal, 12-15 July 2017. ISBN: 978-9-898-48158-0.
- Malena M., De Santis S., Pantò B., de Felice G. A closed-form analytical solution to the debonding of SRG on curved masonry substrate. Proc. Int. Conf. MuRiCo5 5th International Conference on mechanics of masonry structures strengthened with composite materials. Bologna, Italy, 28-30 June 2017. *Key Engineering Materials* 2017;747:313-318. DOI: 10.4028/www.scientific.net/KEM.747.313.
- De Santis S., Roscini F., de Felice G. Retrofitting masonry vaults with Basalt Textile Reinforced Mortar. Proc. Int. Conf. MuRiCo5 5th International Conference on mechanics of masonry structures strengthened with composite materials. Bologna, Italy, 28-30 June 2017. *Key Engineering Materials* 2017;747:250-257. DOI: 10.4028/www.scientific.net/KEM.747.250.
- Zajac B., De Santis S., Sena-Cruz J., Gams M., Kwicień A. Szybkie wzmocnienia konstrukcji materiałami kompozytowymi mocowanymi na złączu podatnym (Quick strengthening of structures using composites bonded on flexible adhesives). Proc. 28th Conference on Structural Failures (Awarie budowlane XXVIII) Międzyzdroje, Poland, 22-26 May 2017. ISBN: 978-83-7663-234-6.
- 2016 Di Ludovico M., Digrisolo A., Graziotti F., Moroni C., Baltzopoulos G., Biondi S., Borri A., Caprili S., Carocci C., Dall'Asta A., Dezi L., De Santis S., Di Fabio F., Di Sarno L., Ferracuti B., Ferretti D., Fiorentino G., Ianniruberto U., Mannella A., Mazzotti C., Podestà S., Riva P., Sandoli A., Silvestri S., Sorrentino L.,

- Vignoli A., Magenes G., Masi A., Prota A., Dolce M., Manfredi G. The contribution of ReLUISto the usability assessment of school buildings following the 2016 Central Italy earthquake. XXXV Convegno GNGTS del Gruppo Nazionale di Geofisica della Terra Solida. Lecce, Italy, 22-24 November 2016.
- de Felice G., De Santis S. Seismic retrofitting of cultural heritage with textile reinforced mortar. Proc. Int. Scientific Conf. BASA 2016. Sofia, Bulgaria, 23-25 November 2016.
- de Felice G., De Santis S. SRG reinforcements for the rehabilitation of masonry vaults. Proc. Int. Conf. Italian Concrete Days, Giornate aicap 2016, Congresso CTE. Rome, Italy, 27-28 October 2016.
- Roscini F., De Santis S., de Felice G. Experimental investigation on the mechanical behaviour of mortar-based strengthening systems. Proc. Int. Conf. SAHC'16 - 10th International Conference on Structural Analysis of Historic Constructions. Leuven, Belgium, 13-16 September 2016. ISBN: 978-1-138-02951-4.
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