

PROGRAMMA XIX Convegno ANIDIS - L'ingegneria sismica in Italia

DOMENICA 11 / 09

18:00-19:30 Welcome Cocktail (Sala delle Colonne @ Castello del Valentino)

LUNEDI 12 / 09

REGISTRAZIONE

Saluti istituzionali e apertura del convegno

09:30-10.15 Keynote Lecture: **M. Sarkisian (ANIDIS) - Eliminating Seismic Risk to Structures through Invention** - (Chair: G. Ferro)

10.15-11.00 Keynote Lecture: **Mustafa Erdik (ASSISI) - Seismic Isolation of Structures in Near Fault Conditions** - (Chair: G. Cimellaro)

Coffee Break

SG04 (Aula 1)

SG07 (Aula 2)

SG09 (Aula 3)

SG11 (Aula 4)

SS17 (Aula 5)

SG12 (Aula 6)

| Chairs: | F. Parisi, L. Ragni | M Mezzina, P.P. Rossi | C. Mazzotti, G. Quaranta | F. Di Trapani, A. Pavese | L. Facconi, M. Leone | R. Gigliotti, D. Liberatore |
|-------------|--|--|---|---|---|---|
| 11:30-13:00 | A fast procedure for the assessment of multi-source consequences of earthquakes on buildings <i>Alessandro Fulco, Fabrizio Comodini, Marco Mezzi</i> | A reduced order model for nonlinear time history seismic analyses of elasto-plastic 3D frame structures <i>Domenico Magisano, Antonella Corrado, Antonio Madeo, Giovanni Garcea</i> | Effect of the backfill material in the seismic response of multi-span masonry arch bridges under seismic loading <i>Mattia Zizi, Corrado Chisari, Gianfranco De Matteis</i> | Experimental study on the in-plane response of cast-in-situ reinforced concrete sandwich walls under combined vertical and horizontal load <i>Paolino Cascese, Carlos Riascos, Carlo Rainieri, Giuseppina De Luca, Alberto Pavese, Antonio Bonati</i> | State of art on bond between FRCM systems and masonry/concrete substrate: database analysis and new desing models <i>Aiello Maria Antonietta, Giuseppe Bramato, Francesca Ceroni, Lidia La Mendola, Giovanni Minafò, Marianovella Leone, Maria Concetta Oddo</i> | Seismic vulnerability assessment and retrofit design of Italian public buildings <i>Rossella Siano, Alaeddine Fatnassi, Florencia Victoria De Maio, Paolo Basso, Marcello Cademartori</i> |
| | Empirical fragility curves for masonry buildings struck by the 2016 Central Italy earthquake <i>Ylenia Saretta, Luca Sbrogiò, Maria Rosa Valluzzi</i> | Local Buckling of Rectangular Concrete-Filled Steel Tubular (CFT) Columns with Binding Bars <i>Shamsedin Hashemi, A. Khalili Baseri, Reza Kianoush</i> | Critical issues in safety assessment of existing reinforced concrete bridges by means of nonlinear analysis <i>Gianfranco De Matteis, Silvia Caprili, Sandro Carbonari, Corrado Chisari, Michele D'Amato, Francesca Mattei, Mattia Zizi, Franco Braga, Andrea Dall'Asta, Fabrizio Gara, Walter Salvatore</i> | Structural testing and monitoring system: the case study of a box girder bridge <i>Arianna Bertone, Luis Alberto Boharquez, Rebecca Asso, Davide Masera, Giuseppe Carlo Marano</i> | Bond behaviour of externally bonded basalt-FRCM system and calcareous stone <i>Marianovella Leone, Giuseppe Bramato</i> | An enhanced system for the combined seismic and energy retrofit of masonry buildings <i>Silvia Caprili, Federica Del Carlo, Giacomo Salvadori</i> |
| | A WebGIS platform for managing the seismic risk at regional scale: the case study of the Emilia-Romagna Region <i>Marta Faravelli, Francesca Bozzoni, Elisa Zuccola, Antonella Di Meo, Davide Quaroni, Diego Polli, Ricardo Rodriguez-Plata, Luca Martelli, Barbara Borzi, Carlo Giovanni Lai</i> | Valutazione semplificata della resistenza a taglio di elementi snelli in c.a. con sezione rettangolare e armatura a taglio <i>Andrea Floridia, Dario Panarelli, Pier Paolo Rossi, Nino Spinella</i> | Application to the territorial authorities of the "Guidelines for the classification and management of risk, for the evaluation of safety and for the monitoring of existing <i>Francesca Fattorini, Walter Salvatore, Emanuele Renzi, Galileo Tamasi</i> | An innovative ductile bracing system easily repairable after a seismic event <i>Federico Gusella, Alessandro Mei, Maurizio Orlando</i> | Experimental investigation on tensile and shear bond behaviour of Basalt-FRCM composites for strengthening calcarenite masonry elements <i>Maria Concetta Oddo, Giovanni Minafò, Lidia La Mendola</i> | Preliminary considerations on the selective weakening of RC columns through rocking systems <i>Andrea Belleri, Simone Labò, Alessandra Marini, Maria Adele Biffi, Michele Viganì</i> |
| | Seismic fragility modelling of unreinforced masonry buildings in Campania region <i>Valentina Buonocunto, Elia Acconcia, Fulvio Parisi</i> | Preliminary analyses of an innovative solution for reducing seismic damage in steel-concrete hybrid-coupled walls <i>Nicola Ceccolini, Fabrizio Scozzese, Alessandro Zona, Graziano Leoni, Andrea Dall'Asta, Hervé Degeé</i> | "Guidelines for the classification and management of risk, for the evaluation of safety and for the monitoring of existing bridges". Critical analysis and identification <i>Brunella Cutrone, Walter Salvatore, Emanuele Renzi, Galileo Tamasi</i> | Preliminary validation of an innovative stress sensor for the Structural Health Monitoring of masonry buildings <i>Alessia Monaco, Gabriele Bertagnoli, Lidia La Mendola, Maria Concetta Oddo, Agatino Pennisi</i> | Analytical prediction of the seismic resistance of masonry buildings retrofitted by Steel Fiber Reinforced Mortar coating <i>Sara Lucchini, Luca Facconi, Fausto Minelli, Giovanni Pizzari</i> | Preliminary considerations on coupled pinned supported walls as a strengthening solution for existing buildings <i>Andrea Belleri, Simone Labò, Maria Elena Cornelli, Martina Mazzucchetti</i> |
| | Peak inelastic displacement as a proxy for accumulating seismic structural damage <i>Roberto Baraschino, Georgios Baltzopoulos, Junio Iervolino</i> | Light non-Linear Numerical Analysis of Masonry Structures through a Multi-Unit Discretization (MUDis) procedure <i>Ylenia Di Lallo, Davide Rapone, Maria Giovanna Masciotta, Giuseppe Brando</i> | Knowledge and Digitalization: a way to improve safety of Road and Highway Infrastructures <i>Emanuele Renzi, Carla Assunta Trifarò</i> | Monitoring of stress distribution in damaged small scale masonry walls by using two innovative sensors. <i>Maria Concetta Oddo, Gaetano Camarda, Giovanni Minafò, Michele Fabio Granata, Gabriele Bertagnoli, Fabio Di Trapani, Agatino Pennisi, Simone Barile</i> | Experimental investigation on compressive and shear capacity of CRM reinforced brick masonry walls <i>Maurizio Orlando, Luca Salvatori, Carlo Vienni</i> | Modeling criteria for the seismic assessment of existing masonry buildings <i>Roselena Sulla, Michele D'Amato, Rosario Gigliotti, Domenico Liberatore</i> |
| | Clustering of empirical damage data for the vulnerability classification of the Italian residential building stock <i>Annalisa Rosti, Maria Rota, Andrea Penna</i> | A sub-assembly based technique for calibration of numerical models of infilled r.c. frames according to experimental tests <i>Samuel Barattucci, Francesca Barbagallo, Edoardo Michele Marino, Claudio Mazzotti, Luca Pozza, Carola Tardo</i> | | Seismic damage and loss evaluation in industrial precast buildings with MEMS accelerometers <i>Marco Bosio, Andrea Belleri, Alessandra Marini, Paolo Riva, Simone Castelli, Luca Danesi, Luca Rota</i> | CRM reinforced brick masonry: Experimental and numerical investigations <i>Carlo Vienni, Maurizio Orlando, Luca Salvatori</i> | |

Pranzo (MIXTO)

14:00-14:45 Keynote Lecture **F. Ballio (ANIDIS) - Forzanti Naturali sui Ponti: Fiumi e Sismi a Confronto** - (Chair: W. Salvatore)

14:45-15:00 Intervento Tecnico (**Freyssinet**) - **ISOSISM: esperienze nell'applicazione della protezione sismica alle strutture**

LUNEDI 12 / 09

SG04 (Aula 1)

SG07 (Aula 2)

SG09 (Aula 3)

SG11 (Aula 4)

SS17 (Aula 5)

SG12 (Aula 6)

| Chairs: | S. Cattari, A. Masi | F. Di Trapani, G. Uva | A. Formisano, P. Riva | F.C.Ponzo, P. Castaldo | L. Facconi, F. Roscini | D. De Domenico, P. Ricci |
|-------------|---|---|--|---|---|---|
| 15:00-16:30 | Empirical seismic vulnerability of Italian URM churches hit by the 2016-17 Central Italy earthquake sequence <i>Annalisa Rosti, Maria Rota, Caterina Carbone, Andrea Penna</i> | Survey on non-linear cyclic responses of Unreinforced Masonry buildings by means of commercial finite-element codes <i>Luca Bomben, Giovanni Rinaldin, Marco Fasan, Claudio Amadio</i> | Robustness evaluation of a steel bridge in the district of Potenza (Italy) <i>Ubaldo Saracco, Matteo Felitti, Francesco Oliveto, Maria Rosa Alvaro, Antonio Formisano</i> | In-situ test and model updating of an RC tied-arch bridge <i>Andrea Gennaro, Amedeo Caprino, Valentina Pernechele, Filippo Lorenzoni, Francesca da Porto</i> | Effectiveness of Flax-TRM composites under traction <i>Alessia Monaco, Mattia Baldassari, Jennifer D'Anna, Pietro Cornetti</i> | Seismic risk analysis: comparison of typological fragility curves between the Emilia 2012 and L'Aquila 2009 earthquakes for masonry buildings <i>Matteo Tatangelo, Lorenzo Audisio, Michele D'Amato, Rosario Gigliotti</i> |
| | An Italian platform for the seismic risk assessment of school buildings <i>Marta Faravelli, Barbara Borzi, Mauro Onida, Serena Cattari, Sara Alfano, Angelo Masi, Vincenzo Manfredi, Sergio Lagomarsino</i> | An efficient elastoplastic model for the analysis of reinforced concrete shells <i>Francesco Salvatore Liguori, Antonella Corrado, Antonio Bilotta, Antonio Madeo</i> | Preliminary proposal of a probabilistic framework for the post-earthquake performance assessment of road networks <i>Lucia Minnucci</i> | Push 'o ver: in situ pushover tests on as built and strengthened existing brickwork constructions <i>Michele Morici, Laura Gioiella, Fabio Micozzi, Alessandro Zona, Allen Dudine, Salvatore Grassia, Carlos Roberto Passerini, Simone Ciotti, Luca Falò, Domenico Liberatore, Luigi Sorrentino, Giacomo Buffarini, Paolo Clemente</i> | Structural strengthening of masonry elements by reinforced repointing combined with FRCM and CRM <i>Francesca Ferretti, Sudip Khatiwada, Andrea Incerti, Giorgio Giacomini, Fabrizio Tomaro, Vincenzo De Martino, Claudio Mazzotti</i> | Smart technologies for integrated seismic risk management in major hazard industrial plants <i>Alessandra Marino, Mariano Ciucci</i> |
| | SISMO-Fast: energy-based method for rapid seismic vulnerability assessment of industrial precast RC buildings <i>Devis Sonda, Andrea Vittorio Pollini</i> | Torsional response of unreinforced masonry buildings <i>Mauro Mezzina, Alfredo Sollazzo, Giuseppina Uva</i> | Operating instructions to the guidelines for risk classification and management, safety assessment and monitoring of existing bridges and seismic risk <i>Emanuele Renzi, Alfredo Rossi, Galileo Tamasi, Graziano Tabelli, Chiara Miccinelli, Armando Lanzi, Mario Vaccariello, Carla Assunta Trifarò</i> | Damage identification after seismic events through damage indexes <i>Luca Danesi, Simone Castelli, Marco Bosio, Luca Rota, Alessandra Marini, Paolo Riva, Andrea Belleri</i> | Influence of displacement rate in the tensile testing of dry yarns for composite materials used in masonry strengthening <i>Annalisa Franco, Gabriele Pisano, Luca Schiavi, Giuseppina De Luca, Antonio Bonati</i> | Self-centering seismic retrofit of RC buildings using shape memory alloy braces <i>Massimiliano Ferraioli, Antonio Concilio, Carmine Moliterno</i> |
| | Seismic risk assessment in transboundary areas: the case study on the border between Italy and Slovenia <i>Maria Polese, Gabriella Tocchi, Matjaz Dolsek, Anze Babic, Marta Faravelli, Davide Quaroni, Barbara Borzi, Andrea Prota</i> | RC Beam-column joint, discussion of the provisions in the second-generation Eurocodes <i>Angelo Marchisella, Giovanni Muciaccia</i> | A regional model for classifying, managing, evaluating, and monitoring the seismic safety of bridge structures: the MLAZIO project <i>Fabrizio Paolacci, Gianmarco De Felice, Gianluca Quinci, Pietro Meriggi</i> | Integrated BIM-SHM techniques for the assessment of seismic damage <i>Simone Castelli, Andrea Belleri, Luca Rota, Graziosi, Lorenzo Locatelli, Adalgisa Zirpoli, Gabrieleen Svaluto</i> | Study on the effectiveness of the CRM system: numerical simulations on masonry piers with OOFEM layered elements <i>Ingrid Boem, Borek Patzák, Alena Kohoutková</i> | Experimental analysis of the effectiveness of pre-stressed steel strips for the strengthening of beam-column joints in existing RC buildings <i>Maria Teresa De Risi, Paolo Ricci, Gerardo Mario Verderame</i> |
| | Ground Motion Analysis Toolbox and Seismic Scenarios Toolbox: software tools for seismic damage scenarios assessment in the Emilia-Romagna Region <i>Gianluca Salamida, Nicola Buratti, Claudio Mazzotti</i> | Empirical modelling of the cyclic response of reinforced concrete columns with deformed bars <i>Mariano Di Domenico, Paolo Ricci, Gerardo Mario Verderame</i> | The soil-structure interaction effect on the seismic vulnerability assessment and retrofiting of existing bridges <i>Marco Gallo, Romeo Tomeo, Emidio Nigro</i> | Monitoraggio strutturale e infrastrutture di trasporto: un caso studio di integrazione dei dati SAR e dei dati vibrazionali acquisiti in situ <i>Felice Carlo Ponzo, Rocco Ditommaso, Gianluca Auletta, Chiara Iacovino, Nicola Lamarucciola</i> | Study on the effectiveness of a CRM system: in-plane and out-of-plane cyclic tests on masonry piers <i>Natalino Gattesco, Emanuele Rizzi, Alessia Bez, Allen Dudine</i> | Seismic retrofiting strategies for pre-70 RC buildings: the effectiveness of "local interventions" <i>Maria Teresa De Risi, Carlo Del Gaudio, Santa Anna Scala, Gerardo Mario Verderame</i> |
| | Fragility models for RC frames with masonry infills and analysis of the efficiency of different lms <i>Gianluca Salamida, Nicola Buratti</i> | Evaluation of the additional shear demand due to frame-infill interaction: a new capacity model <i>Fabio Di Trapani, Valentina Bogatkina, Massimo Petracca, Guido Camata</i> | The significance of the dynamic interaction between bridge and trucks in the evaluation of the resonance structural frequencies <i>Riccardo Martini, Davide Arezzo, Sandro Carbonari, Fabrizio Gara</i> | Push-and-release tests of a strategic base-isolated building in Camerino, Italy <i>Andrea Dall'Asta, Graziano Leoni, Laura Gioiella, Fabio Micozzi, Laura Ragni, Michele Morici, Fabrizio Scozzese, Alessandro Zona</i> | Cyclic shear-compression tests on two stone masonry piers strengthened with CRM and FRCM <i>Gabriele Guerrini, Andrea Bruggi, Santi Urso, Marco Quaini, Andrea Penna</i> | Iso-performance retrofit solutions under a Life Cycle Thinking perspective <i>Simone Labò, Chiara Passoni, Jacopo Zanni, Alessandra Marini, Andrea Belleri, Paolo Riva, Michele Milesi</i> |

Coffee Break

Aula Magna "G. Agnelli"

A.M.

| LUNEDI 12 / 09 | | | | | | |
|----------------|---|---|--|--|--|--|
| | SG04 (Aula 1) | SG07 (Aula 2) | SG09 (Aula 3) | SG11 (Aula 4) | SS17 (Aula 5) | SG12 (Aula 6) |
| Chairs: | F. Mazza, D. Gino | A. Penna, C. Calderini | F. Faleschini, F. Paolacci | D. Foti, A. Belleri | F. Minelli, A. Monaco | C. Amadio, M.A. Zanini |
| 17:00-18:15 | Seismic vulnerability of fixed-base and base-isolated hospitals: blind comparison between shaking table and numerical tests <i>Fabio Mazza, Angelo Donnici, Rodolfo Labernarda</i> | Global modeling strategies for masonry buildings with timber diaphragms under seismic actions <i>Christian Salvatori, Gabriele Guerrini, Ilaria Senaldi, Andrea Penna</i> | "Guidelines for the classification and management of risk, for the evaluation of safety and for the monitoring of existing bridges". An automatic calculation model of the seismic attention class optimized for the use of cloud computing services. <i>Manuel Capogna, Walter Salvatore, Emanuele Renzi, Galileo Tamasi</i> | Structural performance of unreinforced full-scale façade concrete beam-column joint <i>Michele Angiolilli, Amedeo Gregori, Roberto Tonelli, Claudio Tonelli</i> | Investigating the effectiveness of a CRM system: full scale reverse cyclic tests on a two-storey rubblestone masonry building <i>Natalino Gattesco, Emanuele Rizzi, Luca Facconi, Fausto Minelli, Allen Dudine</i> | The capacity of FRP anchors in concrete and masonry structures <i>Mariateresa Guadagnuolo, Giuseppe Faella, Giorgio Frunzio, Luigi Massaro, Domenico Brigante</i> |
| | Analytical fragility curves proposal for Tuscan masonry building typologies <i>Giacomo Lazzarini, Giovanni Menichini, Emanuele Del Monte, Maurizio Orlando, Andrea Vignoli</i> | Finite element modelling of steel eccentric braces for seismic retrofitting <i>Gaetano Della Corte, Gaetano Cantisani</i> | Seismic vulnerability assessment of reinforced concrete bridge piers exposed to chloride-induced corrosion <i>Dario De Domenico, Graziano Lamberto, Davide Messina, Antonino Recupero</i> | Simplified methods for the evaluation of mechanical properties of tuff masonry walls in Campania (Italy) <i>Mariateresa Guadagnuolo, Luciana Di Gennaro, Andrea Basile, Gianfranco De Matteis</i> | Experimental and numerical assessment of the out-of-plane bending behavior of masonry walls retrofitted by Steel Fiber Reinforced Mortar coating <i>Sara Silvana Lucchini, Luca Facconi, Fausto Minelli, Giovanni Pizzari</i> | Stick model for response prediction of as-built and retrofitted infilled RC frames <i>Marco Gaetani d'Aragona, Maria Polese, Andrea Prata</i> |
| | Seismic risk assessment: the case study of Barberino di Mugello municipality <i>Carolina Bazzani, Giovanni Menichini, Emanuele Del Monte, Maurizio Orlando, Andrea Vignoli</i> | Comparison of refined and code-compliant modelling strategies for the seismic analysis of unreinforced masonry buildings <i>Stefano Bracchi, Maria Rota, Andrea Penna</i> | Application of "Linee Guida per la classificazione e gestione del rischio, la valutazione della sicurezza ed il monitoraggio dei ponti e viadotti esistenti": the experience of Regione Calabria <i>Giuseppe Iiritano, Santo Dodaro, Giovanna Petrunaro</i> | Mechanical properties' evaluation of steel bars by non-destructive Vickers micro-hardness tests <i>Isabella Mazzatura, Silvia Caprilli, Francesca Mattei, Walter Salvatore</i> | Fibre reinforced mortars for the out-of-plane strengthening of masonry walls <i>Marta Del Zoppo, Alberto Balsamo, Marco Di Ludovico, Andrea Prata</i> | Shear device for coupling of exoskeleton for seismic improvement and existing RC buildings <i>Fabrizio Comodini, Alessandro Fulco, Francesco Focacci, Marco Mezzi</i> |
| | Seismic analysis and fragility estimate of a mixed masonry-r.c. school building <i>Elisa Saler, Amedeo Caprino, Giulia Scarambato, Francesca Da Porto</i> | Modelling of exterior RC beam-column joints for the seismic assessment of RC-frames <i>Riccardo Nitjffi, Ernesto Grande, Maura Imbimbo, Annalisa Napoli, Roberto Realfonzo</i> | Seismic reliability analysis of a r.c. arch bridge <i>Mariano Angelo Zanini, Klajdi Toska, Flora Faleschini, Lorenzo Hofer, Gianantonio Feltrin, Carlo Pellegrino</i> | Dynamic identification of a strategic building of the sixties with a mixed structure <i>Dora Foti, Nicola Ivan Giannoccaro, Maria Francesca Sabbà, Armando La Scala, Mariella Diaferio</i> | | Structural assessment of modular precast 3D cell mid- to high-rise buildings with different connections <i>Bruno Dal Lago, Luca Volpe, Enrico Papa</i> |
| | Seismic performance of multi-storey steel frames with semi-rigid joints <i>Greta Agata Venneri, Giuseppe Giampaolo Di Girolamo, Ivan Memmo, Gianfranco De Matteis, Giuseppe Brando</i> | Effects of earthquakes with different nature on the seismic performance of masonry vaults <i>Nicoletta Bianchini, Nuno Mendes, Chiara Calderini, Paulo B. Lourenço</i> | The infrastructure challenges of hyperloop <i>Andrea Santangelo</i> | An innovative measure architecture to monitor civil infrastructures <i>Federico Germano, Alberto Rigon, Francesco Caraglia,</i> | | Spiral-based confinement in slabs for the seismic performance enhancement of steel-concrete composite frames <i>Claudio Amadio, Chiara Bedon, Marco Fasan</i> |
| 19:30-24:00 | Concerto serale (Jazz Club Torino) | | | | | |

| MARTEDI 13 / 09 | | | | | | | |
|-----------------|--|--|--|--|---|---|--|
| 08:00-09:00 | REGISTRAZIONE | | | | | | |
| 09:00-09:45 | Keynote Lecture: F. Braga (ANIDIS) - La Evoluzione Delle Norme Tecniche Per Le Costruzioni - (Chair: G. Ferro) | | | | | | |
| 09:45-10:30 | Keynote Lecture: M. Doglioni (ASSISI) - Origin of Seismicity in Italy as a Clue for Seismic Hazard - (Chair: P. Clemente) | | | | | | |
| 10:30-10:45 | Intervento Tecnico (Tecnopolo d'Abruzzo) - <i>La sensoristica MEMS e il machine learning a servizio dell'ingegneria strutturale e del monitoraggio sismico in genere: la soluzione è basata sui sistemi SHM Board</i> | | | | | | |
| 10:45-11:00 | Intervento Tecnico (Edil CAM Sistemi Srl) - <i>L'evoluzione dell'approccio al miglioramento sismico delle strutture esistenti mediante la sperimentazione e l'innovazione della tecnologia CAM®</i> | | | | | | |
| 11:00-11:30 | Coffee Break | | | | | | |
| | SG04 (Aula 1) | SG07 (Aula 2) | SS05 (Aula 3) | SS14 (Aula 4) | SS17 (Aula 5) | SG12 (Aula 6) | |
| Chairs: | G. Quaranta, C. Demartino | G.A. Ferro, S. Caprilli | P. Castaldo, E. Miceli, G. Amendola | A. Formisano, G. Milani | L. Facconi, M. Leone | M. Savoia, A. Saetta | |
| 11:30-13:00 | Numerical evaluation of period elongation for the assessment of seismic damage and usability of reinforced concrete <i>Mariano Di Domenico, Paolo Ricci, Gerardo Verderame</i> | The application of external post-tensioning system to a damage masonry arch <i>Paolo Zampieri, Riccardo Piazzone, Riccardo Ferroni, Carlo Pellegrino</i> | Full-scale experimental tests on unbonded fiber reinforced elastomeric isolators under bidirectional excitation <i>Dario De Domenico, Paolo Longo, Daniele Losanno, Natale Maugeri, Giuseppe Ricciardi, Nicolò Vaiana</i> | Investigation of architectural typological parameters influencing seismic vulnerability of masonry buildings in historical centres: the case of Puglia. <i>Chiara Tosto, Valeria Leggieri, Sergio Ruggieri, Giuseppina Uva</i> | Confinement of masonry columns through SRG: experimental results and analytical prediction <i>Mattero Canestri, Francesca Ferretti, Claudio Mazzotti</i> | Seismic risk assessment of a new RC-framed skin technology for integrated retrofitting interventions on existing buildings <i>Diego Alejandro Talledo, Rita Federico, Irene Rocca, Luca Pozz, Marco Savoia, Anna Saetta</i> | |
| | Seismic vulnerability assessment of RC buildings at compartment scale: the use of CARTIS form <i>Francesca Pasqual, Luisa Berto, Paolo Faccio, Anna Saetta, Diego Alejandro Talledo</i> | Seismic behavior and nonlinear analysis of Hybrid Coupled Shear Walls <i>Francesco Morelli, Agnese Natali, Gabriele Poggi</i> | Bridges seismically isolated by DCFP devices: a study on how the main parameters of the problem affect the seismic performance of the system <i>Guglielmo Amendola, Paolo Castaldo</i> | Seismic assessment of typical historical masonry churches in the Banat region, Romania - Part I <i>Anna Lo Monaco, Nicola Grillanda, Iasmina Onescu, Mihai Fofiu, Francesco Clementi, Michele D'Amato, Antonio Formisano, Gabriele Milani, Marius Mosaroca</i> | FRCM retrofitting techniques for masonry walls: a literature review and some laboratory tests <i>Raffaele Cucuzza, Marco Domaneschi, Guido Camata, Giuseppe Carlo Marano, Antonio Formisano e Domenico Brigante</i> | A CAT bond-based coverage scheme proposal for Italy <i>Lorenzo Hofer, Mariano Angelo Zanini, Paolo Gardani</i> | |
| | Fragility curves for residential unreinforced masonry buildings prone to local mechanisms: the case of the historical center of Sora <i>Valentina Cima, Valentina Tomei, Ernesto Grande, Maura Imbimbo</i> | Fragility curves of a gravity load designed r.c. hospital building: a case study <i>Alessandra Gubana, Alessandro Mazelli</i> | A physical model for dynamic analysis of structures equipped with variable curvature frictional isolators <i>Gaspar Auaad, José Luis Almazán</i> | Seismic assessment of typical historical masonry churches in the Banat region, Romania - Part II <i>Anna Lo Monaco, Nicola Grillanda, Iasmina Onescu, Mihai Fofiu, Francesco Clementi, Michele D'Amato, Antonio Formisano, Gabriele Milani, Marius Mosaroca</i> | Compressive Strength of Masonry Confined by FRCM systems: Assessment of Existing Models and New Proposals <i>Annalisa Napoli, Roberto Realfonzo</i> | Seismic Reinforcement of Historic Brickwork Walls using Titanium Rods <i>Fitsum Haile, Marco Corradi, Antonio Borri, Jill Adkins</i> | |
| | Vulnerability of archetype masonry buildings of the Abruzzo region defined through the CARTIS form <i>Giorgia Cianchino, Giulia Cocco, Davide Rapone, Ylenia Di Lallo, Maria Giovanna Masciotta, Giuseppe Brando</i> | A new approach to estimate the yield strength of lead rubber bearing <i>Masoud Pourmasoud, Alan R. L. Park, Iman Hajirasouli, James Lim, Amirmahmoud Behzadi</i> | Seismic reliability analysis of isolated deck bridges using friction pendulum device <i>Diego Gino, Paolo Castaldo</i> | A macro-element approach for the seismic analysis of monumental buildings <i>Mariacarla Malena, Mario Lorello, Gianmarco de Felice</i> | Assessment of the FRM in-plane behavior in masonry retrofit applications <i>Michele Angiolilli, Amedeo Gregori</i> | Fragility and Loss Assessment of Reinforced Concrete Residential Buildings Under Construction <i>Marco Terrenzi, Alberto Basaglia, Enrico Spacone</i> | |
| | Adaptive knowledge-based seismic risk assessment of existing reinforced concrete buildings using the SLaMa method <i>Livio Pedone, Simona Bianchi, Stefano Pampanin</i> | On the combined effects of proportional damping and damage in vibrating structures <i>Fabrizio Iezzi, Antonio Miglietta, Vincenzo Sepe, Claudio Valente</i> | The "direct-five step procedure for existing buildings": development and first application <i>Matteo Marra, Michele Palermo, Stefano Silvestri</i> | Post-earthquake continuous dynamic monitoring of the twin bellfries of the Cathedral of Santa Maria Annunziata of Camerino, Italy <i>Gianluca Standoli, Francesco Clementi, Carmelo Gentile, Stefano Lenci</i> | Experimental investigation of FRCM under shear loading <i>Rebecca Fugger, Sara Fares, Pietro Meriggi, Francesca Nerilli, Sonia Marfia, Elio Sacco, Gianmarco de Felice</i> | In-plane seismic performance of an innovative steel modular reinforcement system for URM walls <i>Paolo Marandi, Luca Albanesi, Nicolò Damiani, Carlo Manzini, Guido Magenes</i> | |
| | Influence of bond-slip on numerical fragility curves of RC structural columns <i>Lorenzo Audisio, Michele D'Amato, Rosario Gigliotti</i> | Preliminary assessment of "PreWEC" systems made by cross-laminated timber panels and steel columns <i>Andrea Belleri, Marius Eteme Minkada, Dario Baldassarre, Cristiano Loss</i> | Experimental validation of fast design rules for curved surface slider devices through the hybrid simulation technique <i>Marco Furinghetti, Alberto Pavese</i> | Vulnerability of historical masonry buildings: pros and cons of being in aggregate <i>Michele Angiolilli, Serena Cattari, Sergio Lagomarsino, Silvia Pinasco</i> | Influence of spatially heterogeneous deterioration patterns on strength and ductility of corroded reinforced concrete bridge piers <i>Davide Bernardini, Franco Braga, Francesca Buttarazzi, Donatello Cardone, Paolo Di Re, Placido Migliorino, Achille Paolone, Daniela Ruta</i> | Intradors CFRCM strengthening of masonry arches <i>Paolo Zampieri, Davide Santinon, Riccardo Piazzone, Lorenzo Hofer, Klajdi Toska, Flora Faleschini, Carlo Pellegrino, Domenico Ricci, Francesco Iadice, Andrea Vecchi, Franco Iacobini</i> | |
| | 13:00-14:00 | Pranzo (MIXTO) | | | | | |
| | 14:00-14:45 | Keynote Lecture: M. Constantinou (ASSISI) - Testing of Seismic Isolation Hardware: Significance, Scaling, Similarity and Performance-Based Specifications (Chair: G. Cimellaro) | | | | | |
| | 14:45-15:00 | Intervento tecnico (Kistler) - <i>An innovative measure architecture to monitor civil infrastructures</i> | | | | | |

Aula Magna "G. Agnelli"

A.M.

| MARTEDI 13 / 09 | | | | | | |
|--|---|--|---|--|--|---|
| | SG04 (Aula 1) | SG07 (Aula 2) | SS05 (Aula 3) | SS04 (Aula 4) | SS09 (Aula 5) | SS06 (Aula 6) |
| Chairs: | P. Ricci, L. La Mendola | G. Uva, L. Sorrentino | P. Castaldo, E. Miceli, G. Amendola | C. Casapulla, L. Giresini | F. Di Trapani, G. Quaranta | R. Ceravolo, E. Lenticchia |
| 15:00-16:30 | Development and Analysis of an Italian Masonry Building Portfolio Using Post-Earthquake Damage Observations <i>Giovanni Tondo, Daniele Perrone, Ricardo Monteiro, Maria Antonietta Aiello</i> | Push 'o ver: numerical simulation of the Castel di Lama pushover test through a force-based equivalent frame model <i>Daniela Addessi, Domenico Liberatore, Luigi Sorrentino, Allen Dudine, Andrea Dall'Asta, Michele Morici, Antonio Boccamazzo, Oreste De Simone, Giacomo Buffarini, Paolo Clemente</i> | Influence of the pier-abutment-deck interaction on the seismic response of bridges equipped with FPS <i>Elena Miceli, Luca Giordano</i> | Macro vs Micro Limit Analysis models for the seismic assessment of in-plane masonry walls made with quasi-periodic bond types <i>Simon Szabó, Marco Francesco Funari, Bora Pulatsu, Anastasios I. Giouvanidis, Shaghayegh Karimzadeh, Paulo B. Lourenço</i> | Reliability Based Design Optimization of Damped Outrigger Timber Structure using Deep Learning Enhanced Probability Density Evolution Method <i>Sourav Das, Solomon Tesfamariam</i> | A dynamically validated model verified by drone photos of the masonry bridge of the XIX century <i>Francesco Cucumazzo, Dora Foti, Maria Francesca Sabbà, Remo Pavone</i> |
| | An innovative framework for risk assessment of the secondary elements of industrial plants <i>Gianluca Quinci, Fabrizio Paolacci, Michalis Fragiadakis</i> | Cyclic response of post-tensioned low damage timber walls with dissipative devices: numerical prediction <i>Valentina Tomei, Maria Zucconi, Barbara Ferracuti</i> | Design and experimental assessment of a novel damper with high endurance to seismic loads curvature <i>Virginio Quaglini, Eleonora Bruschi, Carlo Pettorosso, Mauro Sartori</i> | Dynamical assessment of the performance factor "Q" for the masonry wall under the out of plane seismic action <i>Simona Coccia, Mario Como</i> | Automated Mapping of the roof damage in historic buildings in seismic areas with UAV photogrammetry <i>Giuliana Cardani, Fausta Fiorillo, Luca Perfetti</i> | Towards the Seismic Monitoring of a Monumental Structure in Mixed Masonry-RC <i>Gaetano Miraglia, Erica Lenticchia, Giuseppe Luca, Rosario Ceravolo</i> |
| | Empirically based approaches for the derivation of fragility curves of Italian RC building typologies <i>Carlo Del Gaudio, Annalisa Rosti, Andrea Penna, Paolo Ricci, Maria Rota, Gerardo Mario Verderame</i> | Experimental investigation on the lateral performance of CLT shear walls connected to perpendicular walls <i>Elisabetta Maria Ruggeri, Giuseppe D'Arenzo, Denise Li Cavoli, Rosario Davide Cottonaro, Marinella Fossetti</i> | Numerical investigation on the seismic performance of a RC framed building equipped with a novel Prestressed LEad Damper with Straight Shaft <i>Eleonora Bruschi, Virginio Quaglini</i> | Comparison of the effects of traditional and innovative tie-rods in reducing the seismic vulnerability of church façades: the case of San Francesco in Mirandola (Italy) <i>Omar AlShawa, Linda Giresini, Claudia Casapulla</i> | Machine-learning-enhanced variable-angle truss model to predict the shear capacity of RC elements with transverse reinforcement <i>Dario De Domenico, Giuseppe Quaranta, Qingcong Zeng, Giorgio Monti</i> | Building typological classification and earthquake damage assessment in Switzerland <i>Annalisa Casciato, Linda Scussolini, Giorgia Coletta, Alireza Khodaverdian, Rosario Ceravolo, Pierino Lestuzzi</i> |
| | Influence of structural-geometric features on seismic vulnerability of masonry buildings based on post-earthquake damage data <i>Santa Anna Scala, Carlo Del Gaudio, Gerardo Mario Verderame</i> | Critical discussion of DC2 design rules for MR-Frames in the framework of the prEN1998 draft <i>Maria Maglio, Rosario Montuori, Elide Nistri, Vincenzo Piluso</i> | 3D numerical characterization of dissipative connection system and retrofit of prefabricated existing rc shed <i>Carlo Pettorosso, Virginio Quaglini, Luca Mari, Eleonora Bruschi</i> | FRP grouted anchors contribution to the masonry walls OOP response through the kinematic approach of limit analysis <i>Alessandra Maione, Claudia Casapulla, Marco Di Ludovico, Andrea Prata, Francesca Ceroni</i> | A new GA-based framework based on Expected Annual Loss for optimizing seismic retrofitting in reinforced concrete frame structures <i>Antonio Pio Sberna, Fabio Di Trapani, Giuseppe Carlo Marano</i> | Structural Health Monitoring and Dynamic Identification of the Historical Town-Hall of Borgo Val di Taro <i>Elena Michelini, Beatrice Belletti, Flavio Bocchi, Antonio B. Costantino, Lorenzo Ferrari, Daniele Ferretti, Simona Patrizi, Daniele Spina</i> |
| | Securing the church of Madonna del Sole during the emergency phase of 2016 earthquake: interoperability of different actors as an instrument for reducing seismic risk of damaged built heritage <i>Enrica Brusa, Claudio Chesi, Stefano Della Torre</i> | The E-DVA method for multi-modal pushover analysis and dominant modes <i>Olivier Lherminier, Silvano Erlicher, Miquel Huguet, Maxime Barakat</i> | Comparative seismic performance of a moment frame equipped with Lateral Impact Resilient Double Concave Frictional devices <i>Gaspar Auada, Paolo Castaldo, José L. Almazán</i> | Empirical fragility curves for macro-elements and single mechanisms of churches damaged during the 2016-2017 Central Italy seismic sequence <i>Romina Sisti, Luca Umberto Argiento, Claudia Casapulla, Francesca Ceroni, Andrea Prata</i> | A novel genetic algorithm-based optimization framework for minimizing seismic retrofitting costs in existing masonry structures <i>Fabio Di Trapani, Antonio Pio Sberna, Gabriele Bertagnoli, Giuseppe Carlo Marano</i> | Surrogate-based Bayesian model updating of an historical masonry tower <i>Federico Ponsi, Elisa Bassoli, Ghita Elsami Varzaneh, Loris Vincenzi</i> |
| Fragility curves for reinforced concrete frames characterized by different regularity <i>Giovanni Smiroldo, Marco Fasan, Claudio Amadio</i> | Reflections on the necessity or not of interventions for the adaptation of existing bridges <i>Michele Frizzarin, Paolo Franchetti</i> | Nonlinear seismic analysis of RC framed structures with horizontal and vertical base-isolation <i>Fabio Mazza</i> | Pushover analysis of rocking façades in masonry churches: the role of friction and geometry in identifying homogeneous classes of vulnerability <i>Luca Umberto Argiento, Elham Mousavian, Claudia Casapulla, Francesca Ceroni</i> | Effect of pile isolation on the seismic demand reduction of integral abutment bridges <i>Angelo Aloisio, Alessandro Contento, Junqing Xue, Massimo Fragiaco, Bruno Briseghella</i> | Impact of the model error on the neural network-based damage detection <i>Federico Ponsi, Giorgia Ghirelli, Elisa Bassoli, Ghita Elsami Varzaneh, Loris Vincenzi</i> | |
| 16:30-17:00 | Coffee Break | | | | | |
| MARTEDI 13 / 09 | | | | | | |
| | SG04 (Aula 1) | - | SS08 (Aula 3) | SS04 (Aula 4) | SS09 (Aula 5) | SS06 (Aula 6) |
| Chairs: | P. Colajanni, B. Ferracuti | | A. De Luca, T. Trombetti | O. Alshawa, L. Giresini | C. Demartino, R. Gentile | P.F. Giordano, E. Lenticchia, |
| 17:00-18:00 | Seismic risk maps for the Italian residential building stock for a sustainable risk reduction and management <i>Mariano Angelo Zanini, Lorenzo Hofer, Flora Faleschini, Carlo Pellegrino</i> | | Analysis of the collapse behavior of the masonry Medici tower resorting on a hybrid discrete-kinematic methodology <i>Micaela Mercuri, Madura Pathirage, Amedeo Gregori, Gianluca Cusatis</i> | Effect of the vertical component of ground motion on a rubble masonry wall model <i>Omar AlShawa, Domenico Liberatore, Luigi Sorrentino</i> | Natural Language Processing (NLP) for Seismic Exposure Modeling <i>Justin Schembri, Roberto Gentile, Carmine Galasso</i> | A simplified procedure to assess uncertainties in the estimation of the rigid motion of isolated buildings based on InSAR monitoring <i>Elisa Bassoli, Francesca Grassi, Ghita Elsami Varzaneh, Francesco Mancini, Loris Vincenzi</i> |
| | Scores: An Algorithm for Records Selection to Employ in Seismic Risk and Resilience Analysis <i>Fabrizio Paolacci, Renato Giannini, Gianluca Quinci</i> | | A proposal for evaluation of seismic vulnerability of complex masonry building with additions: the case of Zoological Station Anton Dohrn <i>Paola Sorrentino, Giuseppe Brandonisio, Antonio De Luca</i> | Effect of ground-motion sequences on a unreinforced masonry wall restrained by an elasto-plastic tie-rod <i>Omar AlShawa, Fabrizio Mollaioli, Laura Liberatore, Domenico Liberatore, Luigi Sorrentino</i> | Seismic upgrading of RC structures through an optimization procedure based on Genetic Algorithm <i>Francesco Nigro, Roberto Falcone, Enzo Martinelli</i> | Wavelet level decomposition of the seismic response of a historic masonry bell tower with and without simulated structural damage <i>Marco Civera, Cecilia Surace</i> |
| | Loss Assessment of Non-Ductile RC Buildings Accounting for Bidirectional Ground Motion <i>Maria Zucconi, Marco Bovo, Barbara Ferracuti</i> | | Proposal of a simple expression for predicting the horizontal capacity of masonry walls <i>Paola Sorrentino, Giuseppe Brandonisio, Antonio De Luca</i> | Pull-out tests on injected steel anchors in a masonry tuff wallet <i>Ciro Del Vecchio, Giuseppe Maddaloni, Maria Rosaria Pecce</i> | Gaussian process-based surrogate modelling for direct loss-based seismic design of base-isolated structures <i>Diego Suarez, Giorgio Rubini, Roberto Gentile, Carmine Galasso</i> | Satellite Interferometric Data for Seismic Damage Assessment <i>Pier Francesco Giordano, Gaetano Miraglia, Erica Lenticchia, Rosario Ceravolo, Maria Pina Limongelli</i> |
| | First hypotheses of regionalisation of the fragility curves for masonry buildings in small municipalities of western Sicily <i>Piero Colajanni, Jennifer D'Anna, Lidia La Mendola, Salvatore Pagnotta</i> | | Complex monumental buildings. Definition of complexities and structural implications <i>Paola Sorrentino, Giuseppe Brandonisio, Antonio De Luca</i> | Innovative Method for Masonry Columns Confinement <i>Alberto Viskovic, Claudia Valente, Alice Di Primio, Rossella Brescia</i> | Machine learning-based derivation of seismic fragility curves for RC bridge piers: preliminary results <i>Xuguang Wang, Alessandra Fiore, Cristoforo Demartino, Giuseppe Quaranta, Giorgio Monti</i> | Application of Multi-Temporal InSAR (MT-InSAR) for structural monitoring: the case study of Scrovegni Chapel in Padova <i>Amedeo Caprino, Gianmarco Bonaldo, Filippo Lorenzoni, Francesca Da Porto</i> |
| 19:30-24:00 | CENA DI GALA (Museo del Risorgimento) | | | | | |

| MERCOLEDI 14 / 09 | | | | | | |
|--------------------|--|--|---|--|---|---|
| REGISTRAZIONE | | | | | | |
| 08:00-09:00 | | | | | | |
| 09:00-09:45 | Keynote Lecture: W. Salvatore (ANIDIS) - <i>Progetto e controllo della conoscenza per la classificazione e valutazione dei ponti esistenti</i> - (Chair: F. Braga) | | | | | |
| 09:45-10:30 | Keynote Lecture: A. Sextos (ASSISI) - <i>Hybrid, Low-Cost, Seismic Isolation Solutions for Low-Rise Buildings in Developing Countries: Experimental Results and Challenges Faced</i> - (Chair: P. Clemente) | | | | | |
| 10:30-10:45 | Intervento tecnico (Somma International) - <i>I dispositivi per l'isolamento sismico - Esempi di applicazioni non convenzionali</i> | | | | | |
| 10:45-11:00 | Intervento tecnico (STA DATA) - <i>Un approccio integrato per il calcolo delle strutture in muratura</i> | | | | | |
| 11:00-11:30 | Coffee Break | | | | | |
| | SG04 (Aula 1) | SS12 (Aula 2) | SS02 (Aula 3) | SS18 (Aula 4) | SG13 (Aula 5) | SS06 (Aula 6) |
| Chairs: | P. Morandi, C. Amadio | M. Latour, S. Pagnotta | G. Brandonisio, A. De Luca | A. Kanyilmaz, M.A. Marra, F. Morelli, A. Natali | G. Magenes, S. Lagomarsino | E. Lenticchia, R. Ceravolo |
| 11:30-13:00 | Simplified assessment of the seismic vulnerability of small earth dams <i>Andrea Ciancimino, Renato Maria Cosentini, Francesco Figura, Sebastiano Foti</i> | Seismic behaviour of steel Moment Resisting Frames with traditional and innovative connections <i>Sabatino Di Benedetto, Antonella Bianca Francavilla, Massimo Latour, Vincenzo Piluso, Gianvittorio Rizzano</i> | Stability issues for elastomeric bearings: analytical formulations compared to experimental results <i>Laura Giovanna Guidi, Giuseppe Brandonisio, Antonello De Luca</i> | How the behavior of beam-to-column joints affects the seismic response of steel rack structures <i>Alessandro Mei, Maurizio Orlando, Luca Salvatori</i> | Dynamic identification of the tabernacle of the church of Santa Maria Maggiore in Spello, Italy <i>Matteo Castellani, Nicola Cavalagli, Enrique Garcia-Macias, Filippo Ubertini, Riccardo Vetturini</i> | The use of Stick-IT model in loss assessment at the large scale <i>Marco Gaetani d'Aragona, Maria Polese, Marco Di Ludovico, Andrea Prota</i> |
| | Seismic fragility assessment of Balvano (Potenza, Italy) pre and post 1980 Irpinia's earthquake <i>Antonio Sandoli, Gaetana Pacella, Bruno Calderoni, Giuseppe Brandonisio, Gian Piero Lignola, Andrea Prota</i> | Welded section defence by LRPD devices <i>Salvatore Benfratello, Luigi Palizzolo, Santo Vazzano</i> | Hybrid strategy for the seismic retrofitting of existing buildings through Base Isolation System <i>Giuseppe Brandonisio, Laura Giovanna Guidi, Guido Camarda, Paola Sorrentino, Antonello De Luca</i> | Experimental validation of dissipative reduced-section thin walled diagonals for seismic-resistant Automated Rack Supported Warehouses <i>Agnese Natali, Francesco Morelli</i> | Seismic vulnerability analysis and structural rehabilitation of a historical masonry tower <i>Massimiliano Ferraioli, Angelo Lavino, Donato Abruzzese, Alberto Mandara, Alberto Maria Avossa</i> | Using commercial UHF-RFID wireless tags to detect structural damage <i>Amedeo Gregori, Chiara Castoro, Antonio Di Natale, Micaela Mercuri, Emidio Di Giampaolo</i> |
| | Push 'o ver: a pushover test program on an existing brickwork construction <i>Antonio Boccamazzo, Giustino Di Emidio, Giuseppe Diotaiuti, Allen Dudine, Andrea Dall'Asta, Fabio Micozzi, Michele Marici, Domenico Liberatore, Luigi Sorrentino, Giacomo Buffarini, Paolo Clemente</i> | Preliminary study of a seismic-resilient steel pilot building equipped with low-damage connections <i>Elena Elettore, Sabatino Di Benedetto, Antonella Bianca Francavilla, Massimo Latour, Rosario Mantuori, Elide Nastro, Vincenzo Piluso, Gianvittorio Rizzano, Mario D'Aniello, Raffaele Landolfo, Roberto Tartaglia, Fabio Freddi</i> | Design spectra to be used in Base Isolation Design in light of recent strong motion records <i>Paola Sorrentino, Laura Giovanna Guidi, Giuseppe Brandonisio, Antonio De Luca</i> | Experimental validation of plastic ovalization strategy for seismic-resistant Automated Rack Supported Warehouses <i>Agnese Natali, Francesco Morelli, Walter Salvatore, Dimitrios Tsarpalis, Dimitrios Vamvatsikos</i> | Ambient vibration test and model updating of the bell tower of St. Michele Arcangelo Cathedral in Casertavecchia, Italy <i>Mattia Zizi, Corrado Chisari, Jafar Rouhi, Angelo Lavino, Gianfranco De Matteis</i> | Investigation of a butterfly-arch stress-ribbon pedestrian bridge under ambient excitation: dynamic identification, FE modelling and parametric optimization <i>Leqia He, Chiara Castoro, Angelo Aloisio, Zhiyong Zhang, Giuseppe Carlo Marano, Amedeo Gregori, Changgen Deng, Bruno Briseghella</i> |
| | Simplified seismic vulnerability analysis of historic residential buildings with fragility curves <i>Giuliana Cardani, Elsa Garavaglia, Grigor Angjeliu</i> | Innovative connections for steel-concrete-trussed beams: a patented solution <i>Alessia Monaco, Salvatore Pagnotta, Piero Colajanni, Lidia La Mendola</i> | Seismic vulnerability of gravity-load design R.C. buildings of 1960s in low seismic areas <i>Paola Sorrentino, Laura Giovanna Guidi, Giuseppe Brandonisio, Antonio De Luca</i> | Seismic Performance of Double-Depth Automated Steel Rack Supported Warehouses in Low Seismicity Regions <i>Marius Pinkawa, Cristian Vulcu, Benno Hoffmeister</i> | Seismic enhancement of masonry arches by means of fibre-reinforced mortar <i>Corrado Chisari, Francesco Masi, Massimo Latour, Gianvittorio Rizzano, Gianfranco De Matteis</i> | Structural health monitoring of an elevated water tank through a computer vision approach <i>Marialuigia Sangirardi, Stefano De Santis, Vittorio Altomare, Pietro Meriggi, Gianmarco de Felice</i> |
| | Assessment of the effect of seismic sequences on steel X-CBF for industrial buildings <i>Luca Bomben, Marco Fasan, Claudio Amadio</i> | Experimental characterization of friction properties of materials for innovative beam-to-column dissipative connection for low-damage RC structures <i>Salvatore Pagnotta, Alessia Monaco, Piero Colajanni, Lidia La Mendola</i> | Seismic retrofit of an existing important building of the 60's through a hybrid strategy <i>Giuseppe Brandonisio, Laura Giovanna Guidi, Davide Michelino, Paola Sorrentino, Antonello De Luca</i> | | The seismic restoration of Palazzo San Giacomo in Russi <i>Marco Peroni, Nicolò Minguzzi</i> | First hypothesis for Optimized Monitoring Strategy through Ambient Vibrations in historic buildings <i>Giacomo Impasa, Alberto Barantini, Salvatore Russo, Paulo Lourenco</i> |
| | The quality of connections between masonry and decks and the effects of earthquake <i>Carmenzo Miozzi, Franco Braga, Raniero Fabrizi, Giuseppe Rossi, Massimo Sessa</i> | Seismic behavior of hybrid coupled walls equipped with self-centering connections <i>Mojtaba Farahia, Fabio Freddi, Massimo Latour</i> | | | | Correlation of local and global structural damage for SHM <i>Alessandro Lubrano Lobjanica, Marta Del Zoppo, Marco Di Ludovico</i> |
| 13:00-14:00 | Pranzo (MIXTO) | | | | | |
| 14:00-14:45 | Keynote Lecture: E. Chatzi (ANIDIS) - <i>The importance of engineering models for informed monitoring of structures</i> - (Chair: A. Dall'Asta) | | | | | |
| 14:45-15:00 | Intervento tecnico (Fibre Net) - <i>Nuovi approcci numerici e progettuali nel consolidamento di edifici di grandi dimensioni</i> | | | | | |
| MERCOLEDI 14 / 09 | | | | | | |
| | SS01 (Aula 1) | SG06 (Aula 2) | SG05 (Aula 3) | SS13 (Aula 4) | SG13 (Aula 5) | SS10 (Aula 6) |
| Chairs: | A. Monaco, M. Alforno | E. Marino, A. Dall'Asta | C. Pellegrino, G. De Matteis | A. Cardellicchio, V. Renò, I. Venanzi | L. Sorrentino, G. De Felice | C. Del Vecchio, M. Di Ludovico |
| 15:00-16:30 | Seismic assessment of masonry vaults by means of an advanced hybrid FEM-DEM modeling strategy <i>Angela Ferrante, Frédéric Dubois, Pierre Morenon</i> | A simple but effective capacity model for check and design of beam-column joints in RC seismic buildings <i>Francesca Barbagallo, Melina Bosco, Aurelio Ghersi, Edoardo Michele Marino, Francesco Sciacca</i> | Self-centering seismic retrofit of RC buildings using shape memory alloy braces <i>Massimiliano Ferraioli, Antonio Concilio, Carmine Molliterno</i> | Application of unsupervised learning for post-earthquake assessment of the Z24 benchmark bridge <i>Valentina Giglioni, Ilaria Venanzi, Filippo Ubertini</i> | Effectiveness of traditional strengthening measures on historic masonry buildings: the seismic performance of Palazzo Comunale in Camerino after 2016-2017 seismic sequence <i>Romina Sisti, Marco Di Ludovico, Andrea Prota</i> | Simplified tools for the risk assessment of existing buildings <i>Gerard J. O'Reilly, Al Moayed Bellah Nafeh, Davit Shahnazaryan</i> |
| | Settlement of masonry barrel vaults: an experimental and numerical study <i>Vieri Cardinali, Barbara Pintucchi, Marco Tanganelli, Francesco Trovattelli</i> | Beam-column joint nomogram: A simple and fast-to-use tool to evaluate the joint integrity in RC structures <i>Vanni Nicoletti, Sandro Carbonari, Fabrizio Gara</i> | Seismic retrofit of a RC building using metallic yielding dampers: a case study. <i>Massimiliano Ferraioli, Gennaro Di Lauro, Pasquale Crisci, Gianfranco Laezza, Angelo Lavino, Carolina Bellantoni</i> | A machine learning framework to estimate a simple seismic vulnerability index from a photograph: the VULMA project <i>Angelo Cardellicchio, Sergio Ruggieri, Valeria Leggieri, Giuseppina Uva</i> | Shake table testing of a low-impact technology for the seismic protection of stone masonry <i>Gianmarco de Felice, Omar AlShawa, Stefano De Santis, Domenico Liberatore, Ivan Roselli, Marialuigia Sangirardi, Luigien Sorrentino</i> | Effectiveness of seismic mitigation strategies for the Italian residential masonry built heritage <i>Pietro Carpanese, Veronica Fallador, Francesca da Porto</i> |
| | Composite Reinforced Mortar (CRM) and Fiber-Reinforced Cementitious Matrix (FRCM) for the seismic protection of masonry vaults <i>Ingrid Boem, Natalino Gattesco</i> | Comparative analysis of code-compliant seismic assessment methods through nonlinear static analyses and demand spectrum: N2 Method vs. Capacity Spectrum Method <i>Simone D'Amore, Livio Pedone, Stefano Pampanin</i> | An Integrated Risk Management System for Road Infrastructures: A Focus on Seismic Risk and Network Performance <i>Emanuele Renzi, Stefano Zampino, Giuseppe Palermo, Galileo Tamasi, Fabiana Di Nucci, Vincenzo Porretto, Luca Germanese</i> | Using transfer learning technique to define seismic vulnerability of existing buildings through mechanical models <i>Sergio Ruggieri, Angelo Cardellicchio, Giuseppina Uva</i> | Collapse mechanisms of churches: typical recurrence rates and damage levels from the analysis of field data after the 2012 Emilia earthquake <i>Claudia Chesi, Briselda Calliku, Alice Festa, Anna Maria Basso Bert, Stefano Barbò</i> | Simplified framework for economic convenience of base isolation as seismic retrofit solution for existing RC buildings <i>Andrea Natale, Ciro Del Vecchio, Tobia Zordan, Marco Di Ludovico</i> |
| | Seismic in-plane displacement capacity of masonry barrel vaults: the role of constructive aspects <i>Marco Alforno, Fiammetta Venuti, Alessia Monaco, Chiara Calderini</i> | Design tool for gypsum-sheathed cold formed steel panels under seismic action <i>Davide Ferrigato, Fabio Minghini, Antonella Salomone, Nerio Tullini</i> | Development and study of seismic risk judgment system for buildings <i>Itsuro Yoshizawa</i> | Improving building inventory with a machine learning approach: application in southern Italy <i>G.Tocchi, M.Polese, A.Prota</i> | Vulnerability analysis aimed at the safeguard of the Ererouyk basilica in Armenia <i>Lorenza Petrini, Paola Bonetti, Gaianè Casnati</i> | Observational loss database of typological precast RC buildings damaged after the 2012 Emilia earthquake <i>Lucia Praticò, Marco Bovo, Marco Savoia</i> |
| | Fracturing and collapse behavior of masonry vaulted structures: a lattice-discrete approach <i>Micaela Mercuri, Madura Pathirage, Amedeo Gregori, Gianluca Cusatis</i> | A methodology for the calibration of partial safety factors accounting for knowledge level, in pushover-based seismic assessment of URM buildings according to the new draft of Eurocode 8 <i>Stefano Bracchi, Maria Rota, Andrea Penna</i> | Il progetto integrato per la ricostruzione post-sisma di Castelluccio di Norcia: procedimenti, tecniche, attuazione <i>Gianluca Fagotti, Stefano Nodessi Proietti, Fulvio Soccodato, Nicola Alemanno, Maurizio Rotondi, Marco Mezzi, Paolo Verducci, Monia Bovicchi, Catia Ciavaglia, Luisa Cincini, Monica Finotto, Eleonora Gabbarelli, Francesca Morasi, Stefano Di Carlo</i> | Automatic identification of residential building features using machine learning techniques <i>Carpanese Pietro, Donà Marco, da Porto Francesca</i> | | Italian National Seismic Prevention Plan: cost analyses for risk reduction policies <i>Elena Speranza, Giuseppina De Martino, Chiara Cante, Mauro Dolce</i> |
| | | | On the Use of Satellite-Based Interferometry for Structural Monitoring of Bridge Portfolios <i>Andrea Nettis, Vincenzo Massimi, Raffaele Nutricato, Davide Oscar Nitti, Sergio Samarelli, Giuseppina Uva</i> | | | |
| 16:30-17:00 | Coffee Break | | | | | |

Aula Magna "G. Agnelli"

A.M.

| MERCOLEDI 14 / 09 | | | | | | |
|-------------------|---|--|---|--|---|---|
| | SG14 (Aula 1) | SG06 (Aula 2) | SS07 (Aula 3) | SS13 (Aula 4) | SS03 (Aula 5) | SS10 (Aula 6) |
| Chairs: | C. Demartino, S. Caprilli | G. Fabbrocino, S. Cattari | L. Restuccia, F. Faleschini | S. Ruggieri, G. Uva | B. Calderoni, A. Sandoli | C. Del Vecchio, M. Di Ludovico |
| 17:00-18:15 | Research on structure using carbon fiber reinforced plastic <i>Momoka Aoki, Osamu Takahashi</i> | A risk-based definition of the confidence factor for the seismic assessment of URM existing buildings <i>Sofia Giusto, Serena Cattari, Sergio Lagomarsino</i> | Structural foamed concrete: preliminary studies for applications in seismic areas <i>Devid Falliano, Luciana Restuccia, Alessio Vinci, Giuseppe Andrea Ferro</i> | META-FORMA: an automated procedure for urban scale seismic vulnerability assessment of masonry aggregates <i>Valeria Leggieri, Sergio Ruggieri, Giuseppe Zagari, Giuseppina Uva</i> | Open issues on non-linear modelling for seismic assessment of existing masonry buildings <i>Gaetana Pacella, Antonio Sandoli, Bruno Calderoni, Giuseppe Brandonisio</i> | Reconstruction process after 2009 Abruzzo earthquake outside and inside historical centers: funding models and strengthening costs <i>Antonio Mannella, Giuseppina De Martino, Marco Di Ludovico, Elena Speranza, Salvatore Giuseppe Duilo Provenzano, Raffaello Fico, Mauro Dolce, Andrea Prota</i> |
| | Seismic behaviour of steel modular buildings: numerical analysis and comparisons between different design solutions <i>Annarita Palmiotta, Stefano Garbellini, Lorenzo Audisio, Roselena Sullò, Michele D'Amato, Rosario Gigliotti</i> | NSE seismic demand characterization: the case of a Spanish RC residential building <i>Laura Navas-Sánchez, Francesca Ferretti, Marco Savoia, Carlos Gamboa-Canté, Jaime Cervera Bravo</i> | Seismic reliability of RC frames casted with EAF concretes <i>Mariano Angelo Zanini, Flora Faleschini, Klajdi Toska</i> | The research project "CHARMING PISTOIA": an integrated HBIM project for preservation and maintenance of heritage structures <i>S. Monchetti, G. Bartoli, M. Betti, L. Facchini, E. Rougier, G. Zini</i> | Implications of the axial force on seismic behavior of masonry spandrels <i>Antonio Sandoli, Bruno Calderoni, Gian Piero Lignola, Andrea Prota</i> | Observed damage and empirical predictive model of the school building heritage of the Marche region <i>Laura Gioiella, Michele Morici, Andrea Dall'Asta</i> |
| | Application of CLT prefabricated exoskeleton for an integrated renovation of existing buildings and continuous structural monitoring <i>J. Zanni a, S. Castella, M. Bosio, C. Passonia, S. Labò, A. Marini, A. Belleria, E. Giuriani, G. Brumano, C. Abrami, S. Santini, G. Venturelli, A.L. Marchetti</i> | Some reflections on the seismic upgrading and regeneration of existing buildings in the Italian regulatory framework <i>Antonio Mannella, Mariangela De Vita, Giovanni Fabbrocino</i> | Dynamic behavior of structural beams made of innovative smart concrete <i>Hasan Borke Birgin, Antonella D'Alessandro, Filippo Ubertini</i> | Using machine learning approaches to perform defect detection of existing bridges <i>Sergio Ruggieri, Angelo Cardellicchio, Andrea Nettis, Vito Renò, Giuseppina Uva</i> | | Italian National Seismic Prevention Plan: cost analyses for risk reduction policies <i>Giuseppina De Martino, Paola Marotta, Marco Di Ludovico, Sergio Iannella, Vincenzo Albanese, Andrea Prota</i> |
| | | | An experimental study on smart-earth samples for structural applications <i>Andrea Meoni, Antonella D'Alessandro, Federico Oyedeji Falope, Angelo Marcello Tarantino, Filippo Ubertini</i> | A new tailored developed software for the risk classification of bridges according to the Italian guidelines <i>Agnese Natali, Vincenzo Messina, Walter Salvatore, Vincenzo Gervasi, Davide Anzalone, Andrea Canciani, Fabio Severino</i> | | Post-earthquake reconstruction of residential buildings in historical centers: damage indices of structural aggregates <i>Giuseppina De Martino, Marco Di Ludovico, Antonio Mannella, Elena Speranza, Raffaello Fico, Salvatore Provenzano, Andrea Prota, Mauro Dolce</i> |
| | | | Artificial Intelligence tools to predict the level of defectiveness of existing bridges <i>Agnese Natali, Milind G. Padalkar, Vincenzo Messina, Walter Salvatore, Pietro Morerio, Alessio Del Bue, Carlos Beltrán-González</i> | | Preliminary considerations on the rocking behaviour of foundations in precast industrial buildings <i>Marius Eteme Minkado, Marco Accolli, Andrea Belleria, Nerio Tullini, Daniela Giretti, Fabio Minghini</i> | |

| GIOVEDI 15 / 09 | | | | | | |
|-----------------|---|--|--|--|--|--|
| 08:00-09:00 | REGISTRAZIONE | | | | | |
| 09:00-09:45 | Keynote Lecture: B. Hoffmeister (ANIDIS) - Dissipative beam-to-column joints and rapid damage assessment network for moderate seismicity regions (Chair: G. De Matteis) | | | | | |
| 09:45-10:00 | Intervento tecnico (FIPMEC) - <i>Isolamento sismico e dissipazione supplementare di energia: 45 anni di esperienza</i> | | | | | |
| 10:00-10:15 | Intervento tecnico (CSPFea) - <i>Strumenti digitali innovativi per le infrastrutture: la Bridge Total Solution</i> | | | | | |

| | SS15 (Aula 1) | SG16 (Aula 2) | SG01 (Aula 3) | SG10 (Aula 5) | SS16 (Aula 5) | - | |
|----------------|--|--|--|---|---|---|--|
| Chairs: | S. Cattari, I. Venanzi, A. Zona | E. Bruschi, M. Mazzei | M.A. Zanini, D. Falliano | M. Guadagnuolo, G. Faella | G. Brandonisio, E. Mele | | |
| 10:15-11:00 | A Bayesian-based data fusion methodology and its application for seismic structural health monitoring of the Consoli Palace in Gubbio, Italy <i>Laura Ierimonti, Ilaria Venanzi, Nicola Cavallari, Enrique Garcia-Macias, Filippo Ubertini</i> | Capacitive accelerometers at low frequency for infrastructure monitoring <i>Mauro Mazzei, Andrea Maria Di Lellis</i> | Exceedance of design seismic actions during the 2016-2017 central Italy seismic sequence: sensitivity to seismic hazard using two source models <i>Pasquale Cito, Antonio Vitale, Iunia Iervolino</i> | Seismic analysis of medical equipment in Ospedale Mauriziano (Torino): a resilience-based approach. <i>Lorenza Abbracciavento, Bernardino Chiaia, Valerio De Biagi, Anna Reggino</i> | Improvement of the seismic response of frame structures through the coupling with an external structure equipped with inerter <i>Angelo Di Egidio, Stefano Pagliaro, Alessandro Contento</i> | | |
| | Nonlinear static analyses to improve the seismic damage assessment of monitored masonry palaces: application to the Consoli Palace of Gubbio, Italy <i>Daniele Sivori, Serena Cattari, Sara Alfano, Laura Ierimonti, Ilaria Venanzi, Filippo Ubertini</i> | A web platform for management and analysis of existing bridges <i>Gianluca Costantino, Davide Messina, Antonino Recupero, Pier Paolo Rossi, Nino Spinella</i> | Best Matching Scenario Earthquake: an alternative paradigm to disaggregation of PHSA <i>Angela Chiechchio, Roberto Paolucci, Manuela Vanini</i> | Kinematic analysis of historic chimney stacks of the royal palace of Carditello <i>Mariateresa Guadagnuolo, Marianna Aurilio, Giuseppe Faella</i> | Conceptual design of anti-seismic devices with metal foam core for CBFs <i>Amparo de la Peña, Atsushi Sato, Massimo Latour, Gianvittorio Rizzano</i> | | |
| | SHM of historical buildings: The case study of Santa Maria in Via church in Camerino (Italy) <i>Davide Arezzo, Vanni Nicoletti, Sandro Carbonari, Fabrizio Gara, Leonardo Cipriani, Graziano Leoni</i> | | | Experimental tests for seismic assessment of ventilated façades <i>Orsola Coppola, Giuseppina De Luca, Annalisa Franco, Antonio Bonati</i> | Sliding pendulum isolators without secretres <i>Ivan Marenda, Agostino Marioni, Marco Banfi, Roberto Dalpedri</i> | | |

11:00-11:30 Coffee Break

| GIOVEDI 15 / 09 | | | | | | | |
|-----------------|--|---|--|---|---|---|--|
| | SS15 (Aula 1) | SS11 (Aula 2) | SG15 (Aula 3) | SG03 (Aula 4) | SS10 (Aula 5) | - | |
| Chairs: | S. Cattari, I. Venanzi, A. Zona | B. Faggiano, G. Iovane, A. Sandoli | L. Cavaleri, S. Carbonari | S. Foti, F. Gara | C. Del Vecchio, M. Di Ludovico | | |
| 11:30-13:00 | Preliminary results in the automated detection of operational modal properties of the Portico Varano in the Camerino Ducal Palace <i>Leonardo Cipriani, Michele Morici, Alessandro Zona, Graziano Leoni, Andrea Dall'Asta</i> | Numerical simulation of a timber retrofit solution for unreinforced masonry buildings <i>Gabriele Guerrini, Nicolò Damiani, Marco Miglietta, Francesco Graziotti</i> | An innovative active control system for the seismic retrofit of a precast R.C. wall-bearing building <i>Giovanni Rebecchi, Fabio Menardo, Alberto Bussini, Pietro Diamanti, Matteo Rosti, Francesco Del Viva, Gerardo Masiello, Salvatore Squazzo</i> | Derivation of rotations in soil motion from array measurements. Application in structural codes <i>Alberto Castellani</i> | Loss-Driven Rapid Warning Methodology for Seismic Risk Mitigation of a Target Railway Infrastructure <i>Iolanda Nuzzo, Carlos Riascos, Daniele Losanno, Nicola Caterino</i> | | |
| | Modal characterization and NDTs of an historical church in Noto <i>Flora Faleschini, Filippo Andreose, Klajdi Toska, Giovanni Gobbi, Mariano Angelo Zanini, Carlo Pellegrino, Dario De Domenico, Giuseppe Ricciardi</i> | Efficacy Assessment of Timber Based In-Plane Strengthening of Wooden Floors on the Seismic Response of Masonry Structures by means of DEM Analyses <i>Alessandra Gubana, Massimo Melotto</i> | TH Analyses and Simplified Approach for Precast RC Frames Retrofit with Dissipative Fuse Devices Sismocell <i>Devis Sonda, Andrea Vittorio Pollini</i> | A Methodology for Extracting the Physical Parameters of Soil-Foundation-Pier Systems from Dynamic Tests <i>Sandro Carbonari, Francesca Dezi, Davide Arezzo, Fabrizio Gara</i> | Seismic retrofit of reinforced concrete frames by direct loss-based design <i>G. Rubini, D. Suarez, R. Gentile, C. Galasso</i> | | |
| | Integrated digital survey and seismic assessment of churches through Distinct Element Modelling: the case study of S. Maria Maggiore in Tuscania <i>Gianmarco de Felice, Clarisse Choueri, Pietro Meriggi, Rodrigo Yanez Chura</i> | Material characterisation for the numerical modelling of a timber-based seismic retrofit for RC buildings <i>Francesco Smirolto, Giovanni Sommacal, Stylianos Kallioras, Dionysios Bournas, Maurizio Piazza, Ivan Giongo</i> | Experimental characterization of the mechanical behaviour of U-shaped dissipative devices <i>Nicola Buratti, Andrea Vittorio Pollini, Claudio Mazzotti</i> | A Probabilistic Study on Impedances and Kinematic Response Factors of Square Pile Groups in Homogeneous Soils <i>Lucia Minnucci, Michele Morici, Sandro Carbonari, Francesca Dezi, Fabrizio Gara, Graziano Leoni</i> | Operational critical issues filling in the Italian form for the post-earthquake damage assessment of churches (A-DC 2006) <i>Romina Sisti, Elvis Cescatti, Veronica Follador, Francesca Da Porto, Chiara Calderini, Sergio Lagomarsino, Michele Morici, Andrea Prota</i> | | |
| | DETECT-AGING blind prediction contest: a benchmark for structural health monitoring of masonry buildings <i>Nicola Buratti, Serena Cattari, Gian Piero Lignola, Andrea Meoni, Fulvio Parisi, Filippo Ubertini, Giorgio Virgulto</i> | Application of timber-based techniques for seismic retrofit and architectural restoration of a wooden roof in a stone masonry church <i>Michele Mirra, Andrea Gerardini, Geert Ravenshorst</i> | Comparative analysis of experimental and numerical data of a steel frame equipped with dissipative replaceable bracing connections <i>Francesca Mattei, Giulia Giuliani, Roberto Andreotti, Roberto, Silvia Caprilli, Nicola Tondini</i> | | Expected losses vs earthquake magnitude curves, for seismic risk mitigation and for insurance purposes <i>Lorenzo Hofer, Mariano Angelo Zanini, Flora Faleschini, Carlo Pellegrino</i> | | |
| | | Design and analysis of dissipative seismic resistant heavy timber frame structures equipped with steel links <i>Giacomo Iovane, Vittorio Oliva, Beatrice Faggiano</i> | | | | | |
| | Timber based systems for the seismic and energetic retrofit of existing structures <i>Giacomo Iovane, Antonio Sandoli, Dante Marranzini, Raffaele Landolfo, Andrea Prota, Beatrice Faggiano</i> | | | | | | |

13:00-14:30 Pranzo (MIXTO)

Aula Magna

| 14:30-19:00 | Giornata studio "IL PROBLEMA DELLA CONOSCENZA NELLA VALUTAZIONE DELLE COSTRUZIONI ESISTENTI" Modetatore: Ing. Andrea Dari (Ingenio) | |
|--------------|---|--|
| 14:30-14:40 | Saluti introduttivi Guido Saracco , Rettore del Politecnico di Torino Giuseppe Ferro , Presidente Ordine Ingegneri della Provincia di Torino | |
| 14:40- 15:10 | Franco Braga - <i>La valutazione della conoscenza nella asseverazione della vulnerabilità</i> | |
| 15:10-15:40 | Michele Calvi - <i>L'importanza della conoscenza nelle costruzioni in zona sismica</i> | |
| 15:40-16:10 | Walter Salvatore - <i>La conoscenza nel controllo e nella valutazione dei ponti esistenti, dall'ispezione al monitoraggio</i> | |
| 16.10-16.30 | Coffee break | |
| 16:30-17:00 | Andrea Dall'Asta - <i>I livelli di conoscenza nella valutazione accurata dei ponti esistenti</i> | |
| 17:00-17.30 | Giuseppe Ferro - <i>La qualità e l'utilizzo della conoscenza delle costruzioni nella valutazione della sicurezza</i> | |
| 17:30-18:00 | Intervento Tecnico - Cismondi Srl: <i>Casi studio applicativi di diagnostica strutturale avanzata</i> | |
| 18:00-18:15 | Intervento Tecnico - G&P Intech : <i>Case Study of Structural Reinforcement of A Masonry Building</i> | |
| 18:15-19:00 | Tavola Rotonda | |

Aula Magna "G. Agnelli"