5. Publication list 2024 DIANA related contributions

Australia

Strain concentration factor at field joints for offshore concrete coated pipelines – Literature review
Mohamed Elgazzar[1], Ahmed Reda[1,3], Ibrahim Sultan[1], Truong Phung[1]
Journal of Pipeline Science and Engineering Volume 4, Issue 3, September 2024, 100196
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Accuracy of stochastic finite element analyses for the safety assessment of unreinforced masonry shear walls
Lewis J. Gooch[1,2], Mark G. Stewart[2] & Mark J. Masia[1]
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Belgium

Numerical investigations on innovative hollow section column-splice connections resorting to laser cutting technology
Rajarshi Das[1], Dan Dragana[1], Alper Kanyilmazb[2], Herve Degee[1]
15th NORDIC Steel construction conference 2024 (NSCC 2024), Lulea, Sweden, 26-28 June, 2024
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Influence of modeling choices and prior information on the Bayesian assessment of a reinforced concrete bridge
Eline Vereecken[1], Wouter Botte[1], Geert Lombaert[2], Robby Caspeele[1]
Structural Concrete Volume25, Issue3 June 2024 Pages 1713-1734
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Efficient Bayesian model selection and calibration using field data for a reinforced concrete slab bridge
Eline Vereecken[1,2], Arthur Slobbe[2], Árpád Rózsás, Wouter Botte[1], Geert Lombaert[3], Robby Caspeele[1]
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Bosnia and Herzegovina

Various numerical modeling procedures of XIX-century masonry building
Naida Ademović[1], Marijana Hadzima-Nyarko[2], Nermina Zagora[3], Vedran Stojnović[4]
Engineering Structures, Volume 301, 15 February 2024, 117361
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Brasil

Thermal Analysis of Concrete Blocks and Stack-Bond Prisms under Different Boundary Conditions
Gustavo Henrique Nalon[1], José Carlos Lopes Ribeiro[1], Leonardo Gonçalves Pedroti[1], Roberto Marcio da Silva[2] and Eduardo Nery Duarte de Araújo[3]
MDPI - Constr. Mater. 2024, 4(1), 58-71; https://doi.org/10.3390/constrmater4010004
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A Mesoscopic Approach for the Numerical Simulation o a Mass Concrete Structure Construction Using Post-Cooling Systems
Igor A. Fraga[1,2] , Ana B. C. G. Silva[1,3] and Eduardo M. R. Fairbairn[1]
MDPI, Buildings 2024, 14, 3232
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Canada

Database analysis of diagonally- reinforced coupling beams and development of new connection detailing for steel and composite coupling beams
Amirhossein Amiri Gheshlaghi
Master Thesis, The University Of British Columbia , Okanagan, Canada

China

Finite element data-driven deep learning-based tensile failure analysis of precast bridge slab joint

Weijian Zhao[1,2], Qiliang Zhao[1], Bochao Sun[1,2], Hitoshi Takeda[3], Tatsuya Usui[3], Takahiko Watanabe[3]

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Improved GAN-based deep learning approach for strain field prediction and failure analysis of precast bridge slab joints

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Engineering Structures, Volume 321, 15 December 2024, 119023

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Experimental and numerical investigation on seismic performance of SFRC shear walls with CFRP bars

Jun Zhao[1,3], Mingyuan Liu[1], Ziran Quan[2], Ning Gao[2], Bobo Lei[2]

Structures Volume 67, September 2024, 106958

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Flexural performance of GFRP-sheathed cold-formed steel composite panel filled with lightweight phosphogypsum

Dapeng Zhao, Ke Li, Jiajun Fan, Juntao Zhu

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Shear mechanism of RCS joints with whole column-section diaphragm

Weijian Zhao[1,2], Yuchen Tao[1,2], Siyuan Feng[1], Linlin Yuan[1]

Engineering Structures Volume 315, 15 September 2024, 118475

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Investigation of cracking mechanism of the first tunnel lining during double-arch tunnel construction

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Effect of beam-column depth ratio on seismic behavior of precast RC column-steel beam joint
Yuchen Tao[1,2], Siyuan Feng[1], Yang Cui[3], Weijian Zhao[1,2]
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Study on the bond-slip numerical simulation in the analysis of reinforced concrete wall-beam-slab joint under cyclic loading
Feng Chen[1], Zhiwu Yu[1,2,3], Yalin Yu[4], Qun Liu[5]
Construction and Building Materials Volume 449, 25 October 2024, 138266
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Anisotropic Behavior in 3D Printed Concrete: Finite Element Simulation Approach
Li, Fy., Hu, X., Shahzad, Q.
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Department of Bridge Engineering, College of Civil Engineering, Tongji University, Siping Road 1239, Shanghai, 200092, China

Cyclic behavior and shear strength of exterior reinforced concrete beam-column joints with inclined columns
Chao Zhang[1], Zhan Zhu[1], Yunfang Wu[2], Xinyu Shen[1,3], Chengtao Liu[1], Kun Liu[1], Kejia Yang[3]
Journal of Building Engineering Volume 90, 1 August 2024, 109341
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Seismic performance of reinforced concrete beam-column joints with diagonal bars wrapped by steel tubes: experimental, numerical and analytical study
Xinyu Shen[1,2], Bo Li[2,3], Yung-Tsang Chen[2,3]
Structures Volume 59, January 2024, 105734
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Concept and flexural performance of non-prestressed steel plate-UHPC-NC composite girder bridge

Lei Tu[1,2,3], Hua Zhao[1,2,3], Dongqin Qiao[1,2,3], Junde Hu[1,2,3], Chengjun Tan[1,2,3], Jing Ma[4], Zhent ao Hu[4], Huiren Qiu[3], Xudong Shao[1,2,3]

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Investigation on Seismic Behavior of Prestressed Steel Strand Composite Reinforced High-Strength Concrete Column

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MDPI, Buildings 2024, 14, 186. https://doi.org/10.3390/buildings14010186

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Croatia

Experimental and numerical assessment of reinforced concrete column under cyclic loading

Eldin Kaloper[1], Edhem Živalj Sarajevo[2], Senad Medić[3]

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Improving the seismic response of masonry piers with single sided frcm coating using innovative clamping details

Ivan Hafner

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Denmark

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Ecuador

Implementation of Laser Scanning and HBIM Technology for the Structural Evaluation of Built Heritage in Ecuador
Luis Alejandro Velastegui-Cáceres[1], Byron Guevara-Bonifaz[1], Julia Velastegui-Cáceres[2], Theofilos Toulkeridis[2]
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France

Using past experience in modern analysis of arch dams
Emmanuel Robbe[1] and Jerzy Salamon[2]
Proceedings USSD 2024 Annual Conference, 22-26 April, Seattle, USA
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Distributed learning with compressed gradient differences
Mishchenko[1], K., Gorbunov[1,4], E., Takáč[2], M., Richtárik[3], P.
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Germany

The earthquake performance of a cultural heritage building: cathedral of St James in Sibenik, Croatia
Muazzam, Shah
Master Thesis, Weimar, Bauhaus-Universität Weimar, Fakultät Bauingenieurwesen, 2024, Germany

Hong Kong

Numerical simulation of the 2010 4-story reinforced concrete structure tested on the E-defense shake table
Swarup Ghosh[1], Farhad Dashti[1], Takuya Nagae[2], Hiroshika Uta[2]
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Indonesia

Finite Element Analysis of The Effect of Fiber Content on The Flexural Strength of SFRC Beams with Steel Rebars
Nurhuda, I., Prasetya, B.H., Nuroji and Priastiwi, Y.A.
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Diponegoro University, Jl. Prof. Soedarto, SH., Tembalang, Semarang 50275, Indonesia

Effect of material quality on cemented sand and gravel (CSG) dam slope design of Cibeet
H Pribadi[1,2] and P T Juwono[2]
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Iraq

Comprehensive Review on the Flexure Behaviour of Corroded Reinforcement Concrete Beams Under Sustained Loads
Al-Mortadha O. Abed, Sultan A. Daud
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Seismic performance evaluation of concrete buttress dram (Dynamic Linear Analysis)
Al-Bayati[1], Noor Nazar, Arslan, Chelang[1] A., Hassan, Waqed[2] H.
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Numerical Validation Of Long-Term Behaviour Of Reinforced Recycled Aggregate Concrete Beam
Dalia Alaa Aldeen Abdulmajed[1], Sultan Ahmed Daud[2] , Fahed Alrshoudi[3]
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Italy

Safety assessment of existing prestressed reinforced concrete bridge decks through different approaches

Mario Ferrara[1], Diego Gino[1], Elena Miceli[1], Luca Giordano[1], Marzia Malavisi[2], Gabriele Bertagnoli[1]

Structural Concrete fib Volume25, Issue 3 June 2024 Pages 1637-1657

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Ceramic Stress Sensor Based on Thick Film Piezo-Resistive Ink for Structural Applications

Gabriele Bertagnoli[1] , Mohammad Abbasi Gavarti[2] and Mario Ferrara[1]

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Computational modeling of reinforced concrete dapped-end beams

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Exchange Information Requirements (EIR) in BIM Uses for the structural analysis of historic buildings: the case study of Aldobrandeschi Palace in Grosseto

Carlo Biagini, Andrea Bongini, Daniele D'Errico, Gianmarco Dell'Orca

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Safety assessment of an existing bridge deck subject to different damage scenarios through the global safety format ECOV

Gabriele Bertagnoli, Mario Ferrara, Elena Miceli, Paolo Castaldo, Luca Giordano

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Impact of sound-insulated joints in the dynamic behavior of Cross-Laminated Timber structures

Matteo Salvalaggio[1,3], Filippo Lorenzoni[2], Maria Rosa Valluzzi[1]

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Investigation of modal damage-sensitive features of a scaled three-storey steel frame for vibration-based damage detection

Francesca Marafini[1], Giacomo Zini[1], Alberto Barontini[2], Silvia Monchetti[1], Michele Betti[1], Gianni Bartoli[1], Nuno Mendes[2], Alice Cicirello[3]

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Applied Element Modelling of cyclic flexural and torsional response of non-planar RC walls.

Andrea Orgnoni[1], Rui Pinho[2]

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Seismic Vulnerability Assessment of a Building Aggregate in the Historical Centre of Florence

Alessia Lico, Chiara Mariotti, Giulia Misseri and Luisa Rovero

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Investigating the Influence of the Improved Multibody Rope Approach on the Structural Behavior of Dakar Mosque Gridshell Structure

Jonathan Melchiorre, Stefano Invernizzi and Amedeo Manuello Bertetto

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Experimental and Numerical Damage Assessment of the Garisenda Tower: Investigation by AE, Thermal, Seismic, and Permanent Strain Analyses

Pedro Marin Montanari[1], Giuseppe Lacidogna[1], Stefano Invernizzi[1], Angelo Di Tommaso[2], Alberto Carpinteri[1,3]

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A 2D TBI model to study lateral dynamics in ship impact event
D. Riboldi, L. Bernardini, A. Collina
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Japan

Nonlinear Analysis On The Experimental Response Of Reinforced Concrete Underground Structure Using Laminated Shell Elements
Seiji Nagata , Toyofumi Matsuo
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Central Research Institute of Electric Power Industry, Chiba-ken, Japan

FEM Analysis of Reinforced Concrete Exterior Beam-Column Joint Structures Subjected to High Varying Axial Forces
N. Zhao[1], Y. Suzuki[1], Y. Taniguchi[1], A. V. Shegay[2], M. Maeda[3]
In: New Zealand Society for Earthquake Engineering, Proceedings NZSEE 2024 Annual Conference
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Effect of composite slab and connection detail on cyclic behavior of steel beam-to-HSS column moment connections
Jialiang Jin[1], Tianhao Yan[1], Takuya Nagae[1], Taichiro Okazaki[2], Tomohiro Matsumiya[3], Noriyuki Takahashi[4]
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Post-earthquake repair of welded unreinforced flange-bolted web connections considering composite slab effects
Jialiang Jin[1], Yu-Lin Chung[2], Takuya Nagae[1], Tianhao Yan[1], Eiki Shigeta[1], Kun-Ching Lin[2]
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Numerical simulation on behavior of damaged composite girders repaired using CFRP sheets
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Evaluation of Fiber Orientation in UHPC Members Using X-ray Micro-CT and Estimation of Member Strength
Jun-ichi Okunishi[1], Yuichi Uchida[2], Hiroshi Inaguma[1], and Akira Tanaka[1]
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Enhancing structural performance evaluation of PC girder bridges through Bayesian model updating
D.B. Chen, C.W. Kim
In: J. S. Jensen, D. M. Frangopol, & J. W. Schmidt (Eds.), Bridge Maintenance, Safety, Management, Digitalization and Sustainability. CRC Press / Balkema - Taylor & Francis Group
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Kenya

Contribution of 3D model representation in subsurface geotechnical investigations
F. Ng'eno, C. Omuto and E. Biamah
African Journal of Engineering Research and Innovation. Volume 2. No. 1, March 2024
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Korea

Moment Redistribution in Continuous Beams with High-Strength Reinforcement
Hwang Do-young
Master Thesis, Seoul National University Graduate School, Department of Civil and Environmental Engineering, Seoul, Korea

Stiffness reduction model of vertically divided reinforced concrete structural walls under lateral loading
Dong-Hee Son
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Malaysia

Fracture analysis of steel fibre-reinforced concrete using Finite element method modeling
Muhammad Alamgeer Shams[1], Naraindas Bheel[1], Mohsin Ali[2] , Mahmood Ahmad[3,4], Taoufik Najeh[5], Yaser Gamil[6], Hamad R. Almujibah[7] , Omrane Benjeddou[8]

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Nepal

Seismic performance assessment of stone masonry buildings: Efficacy of various strengthening elements
Sabin Ban, Kshitij C. Shrestha, Subash Bastola
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Seismic fragility evaluation of the Nepalese pagoda temple: A case study of Laxmi Narsingha temple
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Modelling of thermo-mechanical behaviour of tunnels under fire conditions
R.A. Sanabria Díaz, Eva O.L. Lantsoght, M.A.N. Hendriks

Shear Experiments On Straight Reinforced Concrete Slabs
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Analysis procedures accounting for load redistribution mechanisms in masonry earth retaining structures under traffic loading
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MT-InSAR Optimisation for Structural Health Monitoring

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Combining Architectural Conservation and Seismic Strengthening in the Wood-Based Retrofitting of a Monumental Timber Roof: The Case Study of St. Andrew's Church in Ceto, Brescia, Italy

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Modelling of thermo-mechanical behaviour of tunnels under fire conditions

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Scalable BIM based open workflow for structural analysis of masonry building aggregates
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Mechanical Models For Fibre Reinforced Cementitious Composites - Application To The Design Of A Railway Precast Bridge Deck
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Preservation and Protection of Cultural Heritage: Vibration Monitoring and Seismic Vulnerability of the Ruins of Carmo Convent (Lisbon)
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Romania

Experimental and numerical analysis of different vertical connections of precast shear walls with special regard towards deformability
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Russia

Examples of solving the problem of the theory of viscoelasticity by the finite element method in relation to reinforced concrete structures
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Serbia

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South Africa

Integral Abutment Bridges – Continuum Modelling Of Soil-Structure Interaction Using Finite Element Analysis With Interface Elements
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Computationally-efficient high-fidelity nonlinear FEA of seismically isolated post-tensioned RC bridges
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Photogrammetry-aided numerical seismic assessment of historical structures composed of adobe, stone and brick masonry. Application to the San Juan Bautista Church built on the Inca temple of Huaytará, Peru
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Uganda

Finite element modeling of active cracking in actively reinforced concrete pavement slab exposed to fluctuating temperature
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USA

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Vietnam

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