

5. Publication list 2022

Belgium

Universiteit Leuven

Rutger Vrijdaghs and Els Verstrynghe

Kasteelpark Arenberg 40, Box 2448, Leuven, Belgium

Probabilistic structural analysis of a real-life corroding concrete bridge girder incorporating stochastic material and damage variables in a finite element approach. Engineering Structures. Volume 254, March 1, 2022, 113831.

Brazil

Universidade Federal de Goiás

Jefferson Rosa de Souza and Daniel de Lima Araújo

Escola de Engenharia Civil e Ambiental, Universidade Federal de Goiás, Rua Universitária, nº 1488, Quadra 86, Setor Universitário, Goiânia, GO CEP: 74605-220, Brazil.

Shear capacity of prestressed hollow core slabs in flexible support using computational modelling.

Engineering Structures. Volume 260, 1 June 2022, 114243

Canada

University of Ottawa

Sepideh Zaghian, Beatriz Martín-Pérez and Husham Almansour

Department of Civil Engineering, University of Ottawa, Ottawa, ON, Canada.

Nonlinear finite element modeling of the impact of reinforcement corrosion on bridge piers under concentric loads. Structural Concrete Journal of the *fib*, Volume 23, Issue 1, February 2022, Pages 138-153.

Chili/USA

Pontificia Universidad Católica de Chile and University of Colorado Boulder (USA)

María J. Echeverría-Landeta^{1,2}; Rosita Jünemann-Ureta³; Abbie B. Liel⁴

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⁴University of Colorado Boulder, Department of Civil, Environmental, and Architectural Engineering, Boulder, CO – Estados Unidos

Nonlinear modeling and analysis of reinforced concrete structural walls

Research Gate Article · June 2022 DOI: 10.31243/id.v15.2022.1594

China

Beijing University of Technology

Liu Jin, Yanxi Li, Renbo Zhang and Xiuli Du

Key Laboratory of Urban Security and Disaster Engineering of Ministry of Education, Beijing University of Technology, Beijing, 100024, China

Mesoscopic investigation on seismic performance of corroded reinforced concrete columns. *Earthquake Engineering and Engineering Vibration* volume 21, pages 969–985 (2022). <https://doi.org/10.1007/s11803-022-2130-3>

Beijing Jiaotong University and Hunan University

Guanyuan Zhao ^a, Li Zhu ^a, Suiwen Wu ^b, Wei Liu ^a, Shengjie Duan ^a

^a School of Civil Engineering, Beijing Jiaotong University, Beijing, China

^b Laboratory for Wind and Bridge Engineering of Hunan Province, College of Civil Engineering, Hunan University, Changsha 410082, China

Experimental and numerical investigation on the cross-sectional mechanical behavior of prefabricated multi-cabin RC utility tunnels. *Elsevier Structures*, Volume 42, August 2022, pages 466-479.

Guizhou University and Chongqing University

Xun Ou¹, Yuanming Liu¹, Chao Li¹, Xiaohan Zhou², Qingzhi Chen¹, Yuhang Zhou¹ and Quan Zhang¹

¹ College of Civil Engineering, Guizhou University, Guiyang 550025, China

² College of Civil Engineering, Chongqing University, Chongqing 400044, China

Analysis of the Interaction Effects of Shield Structure Oblique Passing under an Existing Tunnel. *Applied Sc.* 2022, 12(11), 5569; <https://doi.org/10.3390/app12115569>

China/United Kingdom

Zhejiang University (China), Ningbo Yizhong Concrete Pile Co. Ltd. (China) and University of Edinburgh (United Kingdom)

Junwei Ren^a, Quanbiao Xu^b, Gang Chen^b, Xiaodong Yu^c, Shunfeng Gong^a, Yong Lu^d

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^b Architectural Design & Research Institute of Zhejiang University Co. Ltd., and Research Center for Balance Architecture, Zhejiang University, Hangzhou, 310028, China

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^d Institute for Infrastructure and Environment, School of Engineering, The University of Edinburgh, Edinburgh, EH9 3JL, United Kingdom

Full-scale experimental study of the seismic performance of pretensioned spun high-strength concrete piles. *Soil Dynamics and Earthquake Engineering*. Volume 162, November 2022, 107467.

Cyprus

Cyprus University of Technology

Elpida Georgiou, Nicholas Kyriakides, Christis Z. Chrysostomou

Department of Civil Engineering and Geomatics, Cyprus University of Technology, 3036 Limassol, Cyprus.

Numerical simulation of RC frames infilled with RC walls for seismic strengthening of existing structures. *Bulletin of Earthquake Engineering*. January 2022. <https://doi.org/10.1007/s10518-022-01319-w>

Elpida Georgiou, Nicholas Kyriakides & Christis Z. Chrysostomou.
Department of Civil Engineering and Geomatics, Cyprus University of Technology,
3036 Limassol, Cyprus. Elpida Georgiou

Nonlinear numerical parametric study of the number and arrangement of dowels connecting the wall to the bounding frame for the seismic strengthening of RC frames with RC infill walls. Bulletin of Earthquake Engineering volume 20, Pages 3821–3862 (2022).

Cyprus/Portugal

Cyprus University of Technology (Cyprus) and University of Porto (Portugal)

Christiana Filippou¹, André Furtado², Maria Teresa De Risi³, Nicholas Kyriakides¹ and Christis Z. Chrysostomou¹

¹ Cyprus University of Technology

² University of Porto

³ University of Napels

Behaviour of Masonry-Infilled RC Frames Strengthened Using Textile Reinforced Mortar: An Experimental and Numerical Studies Overview

Pages 7743-7767 | Published online: 18 Jan 2022, Journal of Earthquake Engineering, Volume 26, 2022 – Issue 15. <https://doi.org/10.1080/13632469.2021.1988763>

Czech

Czech Technical University

Ingrid Bloem, Department of Concrete and Masonry Structures, Faculty of Civil Engineering, Czech Technical University, Thákurova 7, 166 29 Praha 6, Czech Republic
Masonry Elements Strengthened with TRM: A Review of Experimental, Design and Numerical Methods

Buildings 2022, 12, 1307. <https://doi.org/10.3390/buildings12091307>

Denmark

COWI A/S and The Technical University of Denmark

M.E.M. Andersen & T.W. Jensen, Department of Bridges International, COWI A/S, Kongens Lyngby, Denmark. P.N. Poulsen, J.F. Olesen & L.C. Hoang, Department of Civil Engineering, The Technical University of Denmark, Kongens Lyngby, Denmark.

Validation of reinforced concrete pile caps using non-linear finite element analysis and finite element limit analysis.

Computational Modelling of Concrete and Concrete Structures – Meschke, Pichler & Rots (Eds) © 2022 Copyright the Author(s), ISBN: 978-1-032-32724-2.

Egypt

Cairo University, Higher Technological Institute (HTI) and Helwan University

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¹ Structural Engineering Department, Cairo University, Cairo, Egypt

² Higher Technological Institute HTI at 10th of Ramadan City, Egypt

³ Civil Engineering Department, Helwan University, Cairo, Egypt.

Behavior of encased steel-high strength concrete columns against axial and cyclic loading. Journal of Constructional Steel Research. Volume 191, April 2022, 107161

Germany

Leibniz University of Hannover

Sander van den Broek¹, Johannes Wolff², Sven Scheffler¹, Christian Hühne², Raimund Rolfes¹

¹ Institute of Structural Analysis, Leibniz University Hannover, Appelstr. 9A, 30167 Hannover, Germany

² Deutsches Zentrum für Luft-und Raumfahrt (DLR), Lilienthalplatz 7, 38108 Brunswick, Germany.

Improving the fatigue life of printed structures using stochastic variations.

Progress in Additive Manufacturing (2022) 7:1225–1238.

<https://doi.org/10.1007/s40964-022-00296-5>

Technische Universität Braunschweig

Henrik Matz and Martin Empelmann

Robustness of centrally loaded UHPC-columns

Institute of Building Materials, Concrete Construction and Fire Safety, Division of Concrete Constructions, Technische Universität Braunschweig, Germany. Conference: HiPerMat 2020 - 5th International Symposium on Ultra High Performance Concrete and High Performance Construction Materials at Kassel, Germany.

Henrik Matz, Marcel Wichert, Martin Empelmann

Grouted segment joints for structures made of ultra-high performance concrete

iBMB, Division of Concrete Construction, TU Braunschweig, Germany

Proceedings of the *fib* Symposium 2019. Concrete - Innovations in Materials, Design and Structures.

Henrik Matz, Martin Empelmann

iBMB, Division of Concrete Construction, TU Braunschweig, Germany

Butt joints in prefabricated columns with high reinforcement ratios

Conference paper, *fib* Congress Oslo, June 2022.

Jan-Paul Lanwer¹, Hendrik Weigel¹, Abtin Baghdadi², Martin Empelman¹ and Harald Kloft²

¹ iBMB (Institute of Building Materials, Concrete Constructions and Fire Safety), Division of Concrete Construction, TU Braunschweig, 38106 Braunschweig, Germany

² ITE (Institute of Structural Design), TU Braunschweig, 38106 Braunschweig, Germany.

Jointing Principles in AMC—Part 1: Design and Preparation of Dry Joints

Appl. Sci. **2022**, *12*(9), 4138; <https://doi.org/10.3390/app12094138>

H. Matz, M. Wichert, M. Empelmann

iBMB, Division of Concrete Construction, TU Braunschweig, Germany

Numerical investigations on grouted segment joints for UHPC-structures.

Advances in Engineering Materials, Structures and Systems: Innovations, Mechanics and Applications – Zingoni (Ed.) Taylor & Francis Group, London, ISBN 978-1-138-38696-9.

Technical University of Darmstadt

Dominik Müller, Lukas Bujotzek, Tilo Proske and Carl-Alexander Graubner

¹ Institute of Concrete and Masonry Structures, Technical University of Darmstadt, Franziska-Braun-Straße 3, 64287, Darmstadt, Germany.

Influence of spatially variable material properties on the resistance of masonry walls under compression. Materials and Structures volume 55, article number 84.

Published 8 March 2022. <https://doi.org/10.1617/s11527-022-01913-z>

Germany/Netherlands

Leibniz University of Hannover (Germany), Rotterdam University of Applied Sciences (The Netherlands)

Sander van den Broek^a, Eelco Jansen^b, Raimund Rolfes^a

^aLeibniz University Hannover, Germany

^bRotterdam University of Applied Sciences, the Netherlands

Efficient generation of geodesic randomfields in finite elements with application to shell buckling.

Article in *Thin-Walled Structures* · June 2022. DOI: 10.1016/j.tws.2022.109646

India

Mahindra University

Faisal Mehraj Wani, Mohd Ataullah Khan, Jayaprakash Vemuri. Department of Civil Engineering, Ecole Centrale College of Engineering, Mahindra University, Hyderabad, India.

2D nonlinear finite element analysis of reinforced concrete beams using total strain crack model. Materials Today: Proceedings 64 (2022) 1305–1313

Ruthviz Kodali, Faisal Mehraj Wani¹, Tariq Anwar Aquib², and Jayaprakash Vemuri¹

¹Department of Civil Engineering, Ecole Centrale College of Engineering, Mahindra University, India.

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Numerical Modelling of an Unreinforced Masonry Wall with Central Window

Opening. Recent Advances in Materials, Mechanics and Structures (pp.61-71), October 2022

India/Saudi Arabia

Mahindra University (India), King Abdullah University of Science and Technology (Saudi Arabia), Indian Institute of Technology Hyderabad (India)

Jayaprakash Vemuri¹, Tariq Anwar² and KVL Subramaniam³

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² Department of Earth Science and Engineering (ErSE), King Abdullah University of Science and Technology, Thuwal, 23955-6900, Saudi Arabia

³ Department of Civil Engineering, Indian Institute of Technology Hyderabad, Telangana 502285, India

Seismic fragility assessment of load-bearing soft-brick unreinforced masonry piers.

Journal of Safety Science and Resilience. Volume 3, Issue 4, December 2022, Pages 277-287.

Iran

Arak University and University of Guilan

Seyed Jafar Hashemi¹ and Javad Razzaghi²

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² Department of Civil Engineering, University of Guilan, Rasht, Islamic Republic of Iran

Comparative study on diagonal strut models for concrete sandwich panels in steel frames. Asian Journal of Civil Engineering 23, 125-139 (2022).

Iran/Germany/USA

K.N. Toosi University of Technology (Iran), Technical University of Munich (Germany) and Clemson University (USA)

Ali Khansefid^{a b}, Seyed MahmoudrezaYadollahi^c, Gerhard Müller^b, Francesca Taddei^b

^a Civil Engineering Department, K.N. Toosi University of Technology, Tehran, Iran

^b Civil Engineering Department, Technical University of Munich, Munich, Germany

^c Civil Engineering Department, Clemson University, Clemson, USA

Soil-structure-interaction effects on the seismic performance of a masonry building under geothermal power plants induced earthquakes. Structures, volume 55, September 2023, Pages 468-481

Iraq

Al-Nahrain University

Nabaa Safaa Hussein¹, Sultan A. Daud².

¹MSC Student.

²Assistant Professor. Civil engineering department, College of Engineering, Al-Nahrain University, Baghdad, Iraq.

Cracks Performance of Lightweight Concrete Beams. International Journal of Mechanical Engineering, Vol. 7 No 1. January, 2022. ISSN: 0974-5823

University of Technology, Iraq and University of Kerbala, Iraq.

Mohammed Elwi¹, Wameedh Ghassan Abdul-Hussein², Ahlam Sader Mohammed³, Mustafa Amoori Kadhim⁴

^{1,2,3}Civil Engineering Department, University of Technology, Iraq

⁴Civil Engineering Department, University of Kerbala, Iraq.

Seismic behavior of a strengthened full scale reinforced concrete building using the finite element modelling approach.

Periodicals of Engineering and Natural Sciences. Vol. 10, No.2, April 2022, pp.539-556.

Italy

Masera Engineering Group and Politecnico di Torino

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Behaviour and Analysis of Horizontally Curved Steel Box-Girder Bridges

Open Journal of Civil Engineering, 2022, 12, 390-414.

<https://www.scirp.org/journal/ojce>. ISSN Online: 2164-3172. ISSN Print: 2164-3164.

Politecnico Di Torino, Responsible, Risk, Resilience Interdepartmental Centre (R3C)

Stefania Coccimiglio¹, Giorgia Coletta¹, Erica Lenticchia^{1 2}, Gaetano Miraglia^{1 2} and Rosario Ceravolo^{1 2}.

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Combining satellite geophysical data with continuous on-site measurements for monitoring the dynamic parameters of civil structures. *Scientific Reports* volume 12, Article number: 2275 (2022)

University of Bologna

F. Ferretti & C. Mazzotti. *DICAM Department, University of Bologna, Bologna, Italy.*

Numerical modeling of compression tests on masonry cores.

Computational Modelling of Concrete and Concrete Structures – Meschke, Pichler & Rots (Eds). © 2022 Copyright the Author(s), ISBN: 978-1-032-32724-2.

University of Florence

Ambra Maramai and Michele Coppola. University of Florence, Italy
Communication: Ambra Maramai.

The Castle of Cerretaccio studies for the material history and conversation.

FORMA CIVITATIS: International journal of urban and territorial morphological studies (IJUTMS), Vol. 2, N. 1, 2022.

University of Genoa and University of Pavia (Italy)

Serena Cattari¹ and Guido Magenes

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² Department of Civil and Architectural Engineering (DICAR), University of Pavia, Via Adolfo Ferrata 3, 27100, Pavia, Italy

Benchmarking the software packages to model and assess the seismic response of unreinforced masonry existing buildings through nonlinear static analyses. Bulletin of Earthquake Engineering 20, 1901-1936 (2022). <https://doi.org/10.1007/s10518-021-01078-0>

University of Napels (Italy)

F. Saviano, F. Parisi, G. P. Lignola, Department of Structures for Engineering and Architecture, University of Naples Federico II, via Claudio 21, 80125 Naples, Italy

Material aging effects on the in-plane lateral capacity of tuff stone masonry walls: a numerical investigation.

Materials and Structures (2022) 55:198. <https://doi.org/10.1617/s11527-022-02032-5>

University of Padova

Matteo Salvalaggio and Maria Rosa Valluzzi

Department of Cultural Heritage, University of Padova, Piazza Capitaniato 7, 35139 Padova, Italy.

Optimization of Intervention Strategies for Masonry Buildings Based on CLT Components.

Italy/Chile

Technical University of Milan (Italy) and Pontificia Universidad Católica de Chile (Chile)

Sebastián Calderón ^{1,2}, Gabriele Milani¹, Cristián Sandoval³

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²Department of Structural and Geotechnical Engineering, Pontificia Universidad Católica de Chile, Santiago, Chile

³School of Architecture, Pontificia Universidad Católica de Chile, Santiago, Chile.

Simplified micro-modeling of partially-grouted reinforced masonry shear walls of hollow concrete blocks. AIP Conference Proceedings, Volume 2425, Issue 1, 6 April 2022.

Italy/Netherlands

Sapienza Università di Roma and Delft University of Technology

Daniela Fusco ^a, Francesco Messali ^b, Jan G. Rots ^b, Daniela Addessi ^a, Stefano Pampanin ^a.

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^b Delft University of Technology, Department 3MD, Building 23, Stevinweg 1, 2628 CN Delft, the Netherlands.

Numerical issues on brittle shear failure of pier-wall continuous vertical joints in URM Dutch buildings. Engineering Structures. Volume 258, 1 May 2022, 114078.

University of Bologna, Delft University of Technology

Francesca Ferretti¹, Samira Jafari², Rita Esposito², Jan G. Rots² and Claudio Mazzotti¹

¹ Department of Civil, Chemical, Environmental and Materials Engineering, University of Bologna, Viale Risorgimento 2, 40136 Bologna, Italy

² Faculty of Civil Engineering and Geosciences, Delft University of Technology, Stevinweg 1, 2628 CN Delft, The Netherlands

Critical analysis on the use of the shove test for investigating the shear-sliding behavior of brick masonry. Engineering Structures. Volume 254, March 2022, 113860.

Italy/Spain

University of Pisa (Italy) and Polytechnic University of Catalunya (Spain)

Irene Puncello¹, Sylvia Caprili¹ and Pere Roca²

¹Department of Civil and Industrial Engineering (DICI), University of Pisa, Pisa, Italy

²Department of Civil and Environmental Engineering (DCEE), Polytechnic University of Catalunya, Barcelona, Spain

Simplified numerical approach for the structural analysis of monumental historical aggregates: the case study of Certosa di Calci. Bull Earthquake Eng. 20, 5269-5300 (2022).

Italy/Spain/Switzerland

University of Florence (Italy), Universitat Politècnica de Catalunya (Spain) and École Polytechnique Fédérale de Lausanne (EPFL) (Switzerland)

Francesca Marafini^a, Sara Dimovska^b, Savvas Saloustros^{b,c}, Còssima Cornadó^d, Pere Roca^b.

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^d Universitat Politècnica de Catalunya (UPC-BarcelonaTech), Department of Architectural Technology, Jordi Girona 1-3, 08034 Barcelona, Spain

Historical development and seismic performance of unreinforced masonry buildings with vertical extensions in the city centre of Barcelona

Article *in* International Journal of Architectural Heritage · August 2022 DOI: 10.1080/15583058.2022.2096513

Japan

Muroran Institute of Technology

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^bCollege of Design and Manufacturing Technology, Muroran Institute of Technology, Muroran, Japan

Shear strength and cracking behavior of reinforced concrete nonstructural walls

Journal of Asian Architecture and Building engineering

<https://doi.org/10.1080/13467581.2020.1838290>

Lithuania

Vilnius Gediminas Technical University (Lithuania)

Juozas Masėnas

Surenkamosios monolitinės gelžbetoninės perdangos plokštės su plastikiniais intarpais pleišėjimo analizė

Mokslas – Lietuvos ateitis / Science – Future of Lithuania. ISSN 2029-2341 / eISSN 2029-2252. 2022 Volume 14, Article ID: mla.2022.15151, 1–5

<https://doi.org/10.3846/mla.2022.15151>.

Šarunas Skuodis^{1*}, Mykolas Daugevicius¹, Jurgis Medzvieckas¹, Arnoldas Šneideris¹, Aidas Jokubaitis¹, Justinas Rastenis² and Juozas Valivonis¹

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Gediminas Hill Slopes Behavior in 3D Finite Element Model

Buildings 2022, 12, 1113. <https://doi.org/10.3390/buildings12081113>

Nepal

Tribhuvan University Nepal

Lalit Bhatt^a, Kshitij Charana Shrestha^b

^{a,b}Department of Civil Engineering, Pulchowk Campus, IOE, Tribhuvan University, Nepal.

Fragility Function Generation for Masonry Residential Building for a Pilot Site in Hetauda.

Proceedings of 12th IOE Graduate Conference. Peer Reviewed. ISSN: 2350-8914 (Online), 2350-8906 (Print). October 2022. Volume: 12

Netherlands

Ane de Boer Consultancy & Municipality of Amsterdam

Ane de Boer¹, Long Ha² and Andrew Quansah²

¹ Ane de Boer Consultancy, Arnhem, the Netherlands & Municipality of Amsterdam, the Netherlands

² Engineering Office, Municipality of Amsterdam, Amsterdam, the Netherlands

Assessment by in-situ load tests of historical steel-concrete bridge decks

EURO-C 2022, Vienna, Austria, Proceedings COMPUTATIONAL MODELLING OF CONCRETE AND CONCRETE STRUCTURES, *Edited by* Günther Meschke, Bernhard Pichler, Jan G. Rots, pg712-719

Delft University of Technology

F. Messali, M. Longo, A. Singla & J.G. Rots, *Delft University of Technology, Delft, The Netherlands.*

A comparative computational study on the static pushover and dynamic time history response of a masonry building.

Computational Modelling of Concrete and Concrete Structures – Meschke, Pichler & Rots (Eds). © 2022 Copyright the Author(s), ISBN: 978-1-032-32724-2

Rita Torres Guimaraes da Cunha Areias Hollebrandse, in partial fulfilment of the requirements for the degree of Master of Science in Building Engineering, Structural Design, Faculty of Civil Engineering Delft University of Technology, July 22, 2022
Exploring the possibilities of structural cast glass in the consolidation of historic Buildings.

Daniel Alejandro Nuñez Enriquez, Master Thesis, Master of Science Civil Engineering Master track: Building Engineering – Structural Design, December 20th, 2022.
Seismic performance of glazed curtain walls. Connections: Experimental testing and finite element modelling.

Marianthi Sousamli, Francesco Messali and Jan G. Rots, Faculty of Civil Engineering & Geosciences, TU Delft, Delft.

A total-strain based orthotropic continuum model for the cyclic nonlinear behavior of unreinforced brick masonry structures. © 2022 International Journal for Numerical Methods in Engineering published by John Wiley & Sons Ltd. Int J Numer. Methods Eng. 2022;123:1813–1840.

Catharina Johanna Backer (Karin). Delft, University of Technology, Architecture, Urbanism & Building Sciences. Graduation Plan. Glass Design & Sustainable Structures, Master of Science Architecture, Urbanism & Building Sciences.
A thin composite glass panel; a new design for monumental glass.

Catharina Johanna Backer (Karin). Delft, University of Technology, Architecture, Urbanism & Building Sciences. Presentation and report: **The use of thin glass in heritage window glazing; testing different design concepts.**

Elisa Stolwijk, in partial fulfilment of the requirements for the degree of Master of Science in Civil Engineering, Faculty of Civil Engineering Delft University of Technology, June 23, 2022

The sheet pile behaviour for hole weakening in sheet piles.

Delft University of Technology, Faculty of Civil Engineering & Geosciences and Faculty of Architecture and the Built Environment

Tim van Driel^a, Chris Noteboom^b, Mauro Overend^c

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Investigations on the Cold Bending Behaviour of a Double Glazing Unit with a Rigid Edge-Spacer Frame

Challenging Glass Conference Proceedings – Volume 8 – 2022 – Belis, Bos & Louter (Eds.) Challenging Glass Conference 8 – 23 & 24 June 2022 – Ghent University – Ghent – Belgium. Conference on Architectural and Structural Applications of Glass

Eindhoven University of Technology

Mauritz, Henri H. Master Thesis

A numerical and experimental investigation into the load-bearing capacity of the internal floor-to-wall connection of the Bestcon 60 precast concrete building system. Department of the Built Environment, Master's program Architecture, Building and Planning, Unit Structural Engineering and Design, Chair of Structural Design of Concrete Structures. Eindhoven, December 2022.

TNO Applied Geosciences

Buijze, L., Ter Heege, J., & Wassing, B. (2022).

Finite Element modeling of natural sealing of wellbores in salt using advanced, laboratory-based salt creep laws.

In The Mechanical Behavior of Salt X (pp. 533-544). CRC Press.

Wassing, B., Groenenberg, R., & ter Heege, J. (2022).

Modelling cyclic injection and withdrawal of gas for subsurface energy storage in salt caverns.

In The Mechanical Behavior of Salt X (pp. 616-625). CRC Press.

Hunfeld, L., Breunese, J., & Wassing, B. (2022).

The influence of a threshold stress for pressure solution creep on cavern convergence and subsidence behavior-An FEM study.

In: The Mechanical Behavior of Salt X (pp. 577-589). CRC Press.

TNO

Vereecken, E., Slobbe, A., Rózsás, Á., Botte, W., Lombaert, G., & Caspeele, R. (2022). **Efficient Bayesian model selection and calibration using field data for a reinforced concrete slab bridge.** Structure and Infrastructure Engineering, 1-19.

Netherlands/Norway

Witteveen+Bos, Delft University of Technology (The Netherlands), Norwegian University of Science and Technology (Norway), Multiconsult (Norway), DIANA FEA BV (The Netherlands)

Arjan de Putter^{1,2}, Max A.N. Hendriks^{2,3}, Jan G. Rots², Yuguang Yang², Morten Engen^{3,4}, Ab A. van den Bos⁵

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³Norwegian University of Science and Technology, Trondheim, Norway,

⁴Multiconsult, Oslo, Norway,

⁵DIANA FEA BV, Delft, The Netherlands

Quantification of the resistance modelling uncertainty of 19 alternative 2D nonlinear finite element approaches benchmarked against 101 experiments on reinforced concrete beams.

Structural Concrete, 2022;2023:2895-2909, published by John Wiley & Sons Ltd. On behalf of International Federation for Structural Concrete.

New Zealand**University of Canterbury**

Ana Isabel Sarkis Fernández, University of Canterbury, Department of Civil and Natural Resources Engineering.

Seismic Assessment of precast pre-stressed hollow-core concrete floors.

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Earthquake Engineering. Christchurch, New Zealand, January 2022.

New Zealand/Italy

Aurecon (New Zealand), Sapienza University of Rome (Italy),

University of Canterbury (New Zealand)

Arsalan Niroomandi¹, Stefano Pampanin², Rajesh P. Dhakal³, Mohammad Soleymani Ashtiani³ and Chris de la Torre³

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Norway

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Norway/Quatar

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Poland

Cracow University and AGH University of Science and Technology

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University of Minho (Portugal)

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Department of Civil Engineering, Institute for Sustainability and Innovation in Structural Engineering (ISISE), University of Minho, 4800-058 Guimarães, Portugal;

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Portugal/Ireland

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Portugal/Italy

University of Minho (Portugal), University of Napels, Politechnic University of Timisoara (Italy)

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Damage Assessment of Romanian Historical Masonry Building under Near-Field Earthquake

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Portugal/Serbia/Australia

**University of Minho (Portugal), University of Belgrade (Serbia),
University of Porto (Portugal) and The University of Newcastle
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Newcastle, Australia*

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Portugal/Spain

**University of Minho (Portugal), Instituto de Tecnologías Físicas y de la
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Conservation & Cultural Heritage (Spain).**

Annalaura Vuoto¹, Javier Ortega^{1,2}, Paulo B. Lourenço¹, Francisco Javier Suárez³,
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Slovenia

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South-Africa

Stellenbosch University

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Spain

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Spain/Peru

Universidad de Sevilla, Universidad Politécnica de Madrid Pontificia (Spain) and Universidad Católica del Perú (Peru)

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Spain/Switzerland

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School of Architecture, Civil and Environmental Engineering (ENAC), École
Polytechnique Fédérale de Lausanne (EPFL), EPFL ENAC IIC EESD, GC B2 495,
Station 18, 1015, Lausanne, Switzerland

**Modelling of in-plane seismic behaviour of one-way steel or timber jack arch floors
in existing buildings. Application to the Eixample district of Barcelona**

Sweden

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Technology, SE 412 96, Gothenburg, Sweden

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United Arab Emirates/Egypt

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P.O. Box 31733, Egypt

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United Kingdom

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United Kingdom/Australia

University of Leeds (United Kingdom), University of Newcastle (Australia) and University of Technology Sydney (Australia).

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USA

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Multi-physics simulation of steel corrosion in reinforced UHPC beams under coupled sustained loading and chloride attack.

Computational Modelling of Concrete and Concrete Structures – Meschke, Pichler & Rots (Eds) © 2022 Copyright the Author(s), ISBN: 978-1-032-32724-2

J. Fan, M.J. Bandelt & M.P. Adams

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Meso-scale simulation of non-uniform steel corrosion induced damage in recycled aggregate ductile concrete

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Vietnam

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Assessing the shear behavior of corroded steel fiber reinforced concrete beams without shear reinforcement using nonlinear finite element analysis