

## Publication list 2020

### ABT

Diana de Krom, Fred Veer, Kris Riemens and Wouter Hoogendoorn. Façade becomes structure. Challenging Glass 7 - Conference on Architectural and Structural Applications of Glass - Ghent University September 2020 ISBN 978-94-6366-296-3, <https://doi.org/10.7480/cgc.7.4545>  
<https://journals.open.tudelft.nl/cgc/article/view/4545/4751>

### Ane de Boer Consultancy, Universidad San Francisco de Quito and Delft University of Technology

Ane de Boer (Ane de Boer Consultancy), Eva Lantsoght (Universidad San Francisco de Quito, Ecuador); Yuguang Yang (Delft University of Technology): Reliability of a damaged RC slab structure using Model Code 2010 Safety Formats for NLFEA. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS 2020, Sappora, Japan – Pg 2405-2412

### Arcadis

Han, Jiayi. Deformation Analysis and Repair Work Study of the Willemsspoortunnel in Rotterdam with Fish Mouth Joints. Master Thesis Delft University of Technology, Civil Engineering. 30th Oct 2020.

### Central Nippon Expressway Company Ltd. and Central-NEXCO Technical Marketing Company Ltd.

T. Makita & H. Kitagawa (Central Nippon Expressway Company Limited, Nagoya, Japan), S. Kumagai & H. Tatematsu (Central-NEXCO Technical Marketing Company Limited, Nagoya, Japan). Analytical investigation of structural behaviour of an RC void slab bridge improved with UHPFRC. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 2797-2804

### Chalmers University of Technology

Blomfors, M., Lundgren, K., Zandi, K. (2020): Incorporation of pre-existing longitudinal cracks in finite element analyses of corroded reinforced concrete beams failing in anchorage. Structure and Infrastructure Engineering, Vol. 17, 2021-Issue 7. <https://doi.org/10.1080/15732479.2020.1782444>

### Construction Research Institute, October University for Modern Sciences and Arts

Ezzeldin K. Mohemd (Construction Research Institute, National water Research Center, Egypt), Emad Helal (October University for Modern Sciences and Arts (MSA), Egypt). Minimizing the Failure Risk of Pile Bent Pier Under Seismic Load Using Grouting. Journal of Engineering Sciences, Assiut University, Faculty of Engineering Vol.48 No.1, Jan. 2020, page 11-19, ResearchGate.

### Delft University of Technology

Master Thesis Jos Migalski - Analytical, Numerical and Experimental Analysis of the Helperzoom Post-Tensioned T-Girders – February 2020

Master Thesis – Strookman - Probabilistic Reliability Assessment for Non-Linear Finite Element Analysis of Reinforced Concrete Beams – June 2020

Master thesis Arjan de Putter – Towards a uniform and optimal approach for safe NLFEA of reinforced concrete beams – Quantification of the accuracy of multiple solution strategies using a large number of samples – April 2020

PhD thesis - Manimaran Pari - Simulating quasi-brittle failure in structures using sequentially linear methods - Studies on non-proportional loading, constitutive modelling, and computational efficiency – December 2020

### Delft University of Technology and DIANA FEA BV

Mehdi M. Arzanfudia, Rafid Al-Khourya , L.J. Sluysa , G.M.A. Schreppers, a Faculty of Civil Engineering and Geosciences, Delft University of Technology, DIANA FEA BV. A thermo-hydro-mechanical model for energy piles under cyclic thermal loading  
<https://doi.org/10.1016/j.compgeo.2020.103560>, Elsevier, Sept 2020.

### **Delft University of Technology and Dutch Ministry of Infrastructure and Watermanagement, Dept. of Waterways and Public Works**

A. de Boer M.A.N. Hendriks Y. Yang. Extended validation for using nonlinear finite element analysis for assessing existing concrete structures. NLFEA Guideline for concrete structures, version 2.2, 2 April 2020, , IABSE SYMPOSIUM Wrocław 2020. *Synergy of Culture and Civil Engineering – History and Challenges*, Page 861-868

### **Delft University of Technology and Norwegian University of Science and Technology (NTNU)**

M. Paria, M.A.N. Hendriks, J.G. Rots, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Norwegian University of Science and Technology (NTNU). Non-proportional loading in sequentially linear solution procedures for quasi-brittle fracture: A comparison and perspective on the mechanism of stress redistribution, <https://doi.org/10.1016/j.engfracmech.2020.106960> Elsevier, 1 May 2020.

### **Delft University of Technology, Sapienza University of Rome and DIANA FEA BV**

Dimitrios Dermentzoglou 1 , Myrta Castellino 2 , Paolo De Girolamo 2 , Maziar Partovi 3 , Gerd-Jan Schreppers 3 and Alessandro Antonini 1,\*

Crownwall Failure Analysis through Finite Element Method

<https://doi.org/10.3390/jmse9010035>, 31 Dec 2020

Availability <https://www.mdpi.com/2077-1312/9/1/35>

### **Gdansk University of Technology and Cracow University of Technology**

Marcin Cudny - Faculty of Civil and Environmental Engineering, Gdańsk University of Technology, Andrzej Truty - Faculty of Civil Engineering, Cracow University of Technology. Refinement of the Hardening Soil model within the small strain range [https://doi.org/10.1007/s11440-020-00945-5\(0123456789\(..-volV\)\(0123456789](https://doi.org/10.1007/s11440-020-00945-5(0123456789(..-volV)(0123456789),

Springer, 21 Feb 2020

### **KU Leuven**

H. Nasser, R. Vrijdaghs, C. Van Steen, L. Vandewalle, E. Verstrynghe (KU Leuven, Belgium). Effect of corrosion damage on the tension-stiffening effect: A numerical investigation of the RC tension bar, *Fib CACRCS DAYS 2020, Capacity Assessment of Corroded Reinforced Concrete Structures*, 1-4 December 2020 Venue: ON LINE, Pg 163-170.

R. Vrijdaghs, C. Van Steen, H. Nasser, E. Verstrynghe (KU Leuven, Belgium).

Efficiently assessing the structural reliability of corroded reinforced concrete bridge girders, *Fib CACRCS DAYS 2020, Capacity Assessment of Corroded Reinforced Concrete Structures*, 1-4 December 2020 Venue: ON LINE, Pg 457-464.

### **National Institute for Environmental Studies, Kyoto University, Port and Airport Research Institute, Kyushu University, Kanazawa University and Taiheiyo Consultant Co.**

K. Yamada (National Institute for Environmental Studies (NIES), Tsukuba, Japan),

T. Yamamoto (Kyoto University, Kyoto, Japan), Y. Kawabata (Port and Airport Research Institute (PARI), Yokosuka, Japan), Y. Sagawa (Kyushu University, Fukuoka, Japan), N. Ueda (Kansai University, Suita, Japan), Y. Kubo (Kanazawa University, Kanazawa, Japan), S. Ogawa (Taiheiyo Consultant Co., Ltd, Tokyo, Japan).

Performance based design and maintenance strategy with controlling ASR.

Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 2579-2587

### **Opole University of Technology**

T. Maleska & D. Beben, Opole University of Technology, Opole, Poland. Behaviour of the soil-steel bridge with different soil cover height under seismic excitations.

Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 1801-1808

J. Nowacka, D. Beben & T. Maleska, Opole University of Technology, Opole, Poland. Analysis of soil-steel bridge with EPS geofoam under static loads. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 1816-1823

### **Oslo Metropolitan University, NTNU, NPRA and Delft University of Technology**

M.J. Osmolska<sup>1,2</sup>, T. Kanstad<sup>2</sup>, M.A.N. Hendriks<sup>2,4</sup>, G. Markeset<sup>1</sup>

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<sup>4</sup> Faculty of Civil Engineering and Geosciences, Delft University of Technology (TU Delft), 2628 CN Delft, The Netherlands

Corrosion assessment and effect on the structural performance of pretensioned bridge girders in a coastal climate, Fib CACRCS DAYS 2020, *Capacity Assessment of Corroded Reinforced Concrete Structures*, 1-4 December 2020 Venue: ON LINE, Pg 339-347

### **Public Works Research Institute**

Y. Yang, T. Masuda, E. Yoshida, S. Horiuchi & T. Kiriya (Public Works Research Institute, Tsukuba, Japan). Flexural performance of existing bridge footings under seismic load. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 3912-3920

### **TNO Applied Geosciences**

Buijze, A. J. L. (2020). Numerical and experimental simulation of fault reactivation and earthquake rupture applied to induced seismicity in the Groningen gas field (Doctoral dissertation, Utrecht University).

Buijze, L., Guo, Y., Niemeijer, A. R., Ma, S., & Spiers, C. J. (2020). Nucleation of stick-slip instability within a large-scale experimental fault: Effects of stress heterogeneities due to loading and gouge layer compaction. *Journal of Geophysical Research: Solid Earth*, 125(8), e2019JB018429.

Moghadam, A., Castelein, K., ter Heege, J., van der Valk, K., Orlic, B., and J. Wollenweber. "Large-Scale Laboratory Investigation of the Microannulus Behavior in the Casing-Cement Interface." Paper presented at the 54th U.S. Rock Mechanics/Geomechanics Symposium, physical event cancelled, June 2020.

### **University of Genoa and University of Minho**

Chiara Ferrero (University of Genoa, Department of Civil, Chemical and Environmental Engineering), Paulo B. Lourenço (ISISE, Department of Civil Engineering, University of Minho, Campus de Azurém, 4800-058 Guimarães, Portugal), Chiara Calderini (University of Genoa, Department of Civil, Chemical and Environmental Engineering, 16145 Genoa, Italy). Nonlinear modeling of unreinforced masonry structures under seismic actions: validation using a building hit by the 2016 Central Italy earthquake, Focussed on Fracture and Damage Detection in Masonry Structures, 1 Jan 2020.

### **University of Minho, KTH Royal Institute of Technology, University of Vigo and University Lusiada.**

D.V. Oliveira<sup>1</sup>, R. Allahviridizadeh<sup>2</sup>, A. Sánchez<sup>3</sup>, B. Riveiro<sup>3</sup>, N. Mendes<sup>1</sup>, R.A. Silva<sup>1</sup>, F. Fernandes<sup>4</sup>

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<sup>4</sup> Faculty of Engineering and Technologies, University Lusiada – Norte, Famalicão, Portugal.

STRUCTURAL PERFORMANCE OF A MEDIEVAL STONE MASONRY ARCH BRIDGE. IABSE SYMPOSIUM Wrocław 2020 *Synergy of Culture and Civil Engineering – History and Challenges*, Page 901-908

### **University of Ottawa and National Research Council Canada**

S. Zaghian, B. Martín-Pérez (University of Ottawa), H. Almansour (National Research Council Canada). The Effect of Corrosion and Traffic Loads on Bridge Columns Using Three-Dimensional Non-Linear Finite Element Analysis, *Fib CACRCS DAYS 2020, Capacity Assessment of Corroded Reinforced Concrete Structures*, 1-4 December 2020 Venue: ON LINE, Pg 349-356.

### **University of Porto**

Rui Valente, Aurélio Sine, Mário Pimentel and Sandra Nunes. “Characterization of the anisotropic tensile response of Ultra-High Performance Fibre Reinforced Cementitious Composites”, CONSTRUCT-LABEST, Faculty of Engineering of the University of Porto (FEUP), R. Dr. Roberto Frias, 4200-465 Porto, Portugal. Proceedings of the 2020 session of the 13<sup>th</sup> *fib* International PhD Symposium in Civil Engineering, held in Paris, France, August 26-28, 2020.

### **Waseda University**

S. Lim, M. Zhang & M. Akiyama, Waseda University, Tokyo, Japan. Effects of non-uniform steel corrosion on the structural behavior of RC Beams  
Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 1057-1062

### **Waseda University and Lehigh University**

M. Zhang, S. Lim & M. Akiyama, Department of Civil and Environmental Engineering, Waseda University, Tokyo, Japan, D.M. Frangopol, Department of Civil and Environment Engineering, Lehigh University, Bethlehem, PA, USA. Reliability assessment of RC bridge girders with non-uniform steel corrosion using probabilistic analysis and finite element method. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations, IABMAS2020, Sapporo, Japan – Pg 1050-1056

### **Waseda University, Hokkaido University and Tanaka consultant Co. Ltd.**

S. Imanishi & Y. Sato (Waseda University, Tokyo, Japan), R. Watanabe (Hokkaido University, Sapporo, Hokkaido, Japan), Y. Tanaka (Tanaka consultant Co. Ltd, Tomakomai, Hokkaido, Japan). Safety evaluation of a small bridge subjected to compression restraint by landslide. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 3740-3746

### **Zhejiang University and Chalmers University of Technology**

Jiangpeng Shu (Department of Civil Engineering and Architecture, Zhejiang University, China), Kamyab Zandi (Department of Architecture and Civil Engineering, Chalmers University of Technology Sweden), Weijian Zhao (Department of Civil Engineering and Architecture, Zhejiang University, China). Automated generation of FE mesh of concrete structures from 3D point cloud using computer vision technology. Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations IABMAS2020, Sapporo, Japan – Pg 3300-3303