

## Publication list 2019

### **Aalto University, Maebashi Institute of Technology and Waseda University**

Weiwei Lin<sup>1</sup>, Nozomu Taniguchi<sup>2</sup>, Teruhiko Yoda<sup>3</sup>:

<sup>1</sup> Aalto University, Espoo, Finland,

<sup>2</sup> Maebashi Institute of Technology, Gunma, Japan,

<sup>3</sup> Waseda University, Tokyo, Japan

A Long-life Maintenance Strategy for Existing Steel Railway Structures in Japan,

20th CONGRESS OF IABSE New York City 2019 *The Evolving Metropolis*, PG 1784-1790

### **Ane de Boer Consultancy, Delft University of Technology, Norwegian University of Science and Technology and Politécnico, Universidad San Francisco de Quito**

Ane de Boer<sup>1</sup>, Max A.N. Hendriks<sup>2,3</sup>, Eva O.L. Lantsoght<sup>2,4</sup>:

<sup>1</sup> Ane de Boer Consultancy, Arnhem, the Netherlands

<sup>2</sup> Delft University of Technology, Delft, the Netherlands,

<sup>3</sup> NTNU, Trondheim, Norway

<sup>4</sup> Politécnico, Universidad San Francisco de Quito, Quito, Ecuador

Improvements of a Nonlinear Analysis Guideline for the Re-examination of Existing Urban Concrete Structures,

20th CONGRESS OF IABSE New York City 2019 *The Evolving Metropolis*, pp. 426-432

### **Arcadis**

Ben Gera, T.:

Compressive Membrane Action in Immersed Tubes: A Finite Element Study, Master Thesis TU Delft, Delft, 20 September 2019.

### **Arthe Civil & Structure**

Y.A.B.F. Liem, J.T.S. Vervoort, M.H.A. Brugman, M. Partovi:

Safety approach for tunnel lining calculations in 3D-continuum models *Tunnels and Underground Cities:*

*Engineering and Innovation meet Archaeology, Architecture and Art – Peila, Viggiani & Celestino (Eds) ISBN*

978-1-138-38865-9 Taylor & Francis Group, London, May 3-9 2019 Page 2482 – 2491

### **Arthe Civil & Structure/Royal HaskoningDHV**

H. Mortier (Dimco); M. Brugman (Arthe C&S); B. Peerdeman (RHDHV), T. Schubert (Vinci):

The Rijnlandroute bored tunnel - Continuously improving the mechanized tunneling process, WTC 2019 -

*Tunnels and Underground Cities: Engineering and Innovation meet Archeology, Architecture*, 978 0429424441,

Taylor & Francis, 14-4-2019.

### **Canterbury University UK**

Farhad Dashti, Rajesh P Dhakal, Stefano Pampanin (Canterbury University, UK):

A parametric investigation on applicability of the curved shell finite element model to the nonlinear response

prediction of planar RC walls, *Bulletin on Earthquake Engineering* (2019), 17:6515-6546, Springer Publishing,

13-2-2019.

### **Chalmers University of Technology**

Eik, M., Puttonen, J., Lundgren, K.:

Measuring and numerical modeling of behaviour of fibre concrete in a direct tensile test, *Proceedings of the fib Symposium 2019: Concrete - Innovations in Materials, Design and Structures*, pp. 423-429

Blomfors, M., Zandi, K. & Lundgren, K.:

Incorporation of Cracks in Finite Element Modelling of Existing Concrete Structures, 12th international

workshop on Structural Health Monitoring, September 10-12 2019, Stanford, USA.

Shu, J., Honfi, D., Plos, M., Zandi, K., Magnusson, J.:

Assessment of a cantilever bridge deck slab using multi-level assessment strategy and decision support framework, *Engineering Structures*. Vol. 200, Article no. 109666

Gottsäter, E., Johansson, M., Plos, M., Larsson Ivanov, O.:

Crack widths in base restrained walls subjected to restraint loading, *Engineering Structures*. Vol. 189, pp. 272-285

Shu, J., Plos, M., Zandi, K., Altaf, F.:

Distribution of shear force: A multi-level assessment of a cantilever RC slab, *Engineering Structures*. Vol. 190, pp. 345-359

Gottsäter, E., Larsson Ivanov, O., Plos, M.:

Crack widths in portal frame bridges subjected to restraint effects, 20th Congress of IABSE, New York City 2019: *The Evolving Metropolis* - Report, pp. 1101-1105

### **Chalmers University of Technology and Swedish Transport Administration**

Dimitrios F. KARYPIDIS<sup>1</sup>, Mats GRANATH<sup>1</sup>, Carlos G. BERROCAL<sup>1</sup>, Peter SIMONSSON<sup>2</sup>, Rasmus REMPLING<sup>1</sup>:

<sup>1</sup> Chalmers University of Technology, Gothenburg, Sweden and

<sup>2</sup> Swedish Transport Administration, Luleå, Sweden

Structural Health Monitoring of RC structures using optic fiber strain measurements: a deep learning approach, 20th CONGRESS OF IABSE New York City 2019, *The Evolving Metropolis*, pp. 397-402

### **Construction Research Institute, Egypt**

E.K. Mohamed, E.A. Khalil:

Bubbled Rolled Compacted Concrete Dam, Proceedings of the ICOLD 2019 Symposium: Sustainable and Safe Dams Around the World, 9780429319778, Taylor & Francis, 6-9-2019

### **Cracow University of Technology, Poland**

Szymon Seręga<sup>1</sup> and Dariusz Henryk Faustmann<sup>2</sup>:

<sup>1</sup> Faculty of Civil Engineering, Cracow University of Technology, Krakow, Poland

<sup>2</sup> non-associated

Experimental tests and numerical study of RC beams strengthened with external tendons, Proceedings of the *fib* Symposium 2019, Concrete – Innovations in Materials, Design and Structures.

Filip Pachla, Alicja Kowalska-Koczwara, Tadeusz Tatara, Krzysztof Stypula:

The influence of vibration duration on the structure of irregular RC buildings, *Bulletin of Earthquake Engineering* (2019), 17:3119-3138, Springer, 1-2-2019.

### **Delft University of Technology**

Noortman, F.J.: Applicability of the pushover method for the seismic assessment of URM structures in Groningen, A case study of a low-rise apartment building, Master Thesis.

Bresser, D.: Mimicking a rotating crack model within sequentially linear analysis using an elastic-perfectly brittle sublayer model, Master Thesis.

Paul A. Korswagen, Michele Longo, Edwin Meulman, Jan G. Rots (Delft University of Technology),

Crack initiation and propagation in unreinforced masonry specimens subjected to repeated in-plane loading during light damage, *Bulletin of Earthquake Engineering* (2019), 17:3119-3138, Springer, 1-2-2019.

### **Delft University of Technology and DIANA FEA BV**

J.R. Moraal: 3D non-linear finite element modelling of an onshore wind turbine foundation, Master Thesis, February 28, 2019,

### **DIANA FEA BV**

A.A. van den Bos, P. van der Aa: Slabs and Plates, (Un)expected nonlinear capacity explained, Proceedings of the *fib* Symposium 2019 - Concrete - Innovations in Materials, Design and Structures, 1-6-2019.

A.A. van den Bos, P. van der Aa: Design and Analysis of Reinforced Concrete Deep Beams using NLFEA, Proceedings of the *fib* Symposium 2019 - Concrete - Innovations in Materials, Design and Structures, 27-5-2019.

A.A. van den Bos, P. van der Aa: Validation of beams for MC2020 Using DIANA FEA, Proceedings of the *fib* Symposium 2019 - Concrete - Innovations in Materials, Design and Structures, 27-5-2019.

A.A. van den Bos, P. van der Aa, C. Frissen:

Assessment of Infra Structures using DIANA FEA, Assessment of Infra Structures using DIANA FEA, 2019.

### **Imperial College London**

L.F. Sirumbal-Zapata, C. Malaga-Chuquitaype, A.Y. Elghazouli:

Experimental assessment and damage modelling of hybrid timber beam-to-steel column connections under cyclic loading, Engineering Structures, Elsevier.

### **Norwegian University of Science and Technology, Norway**

Tan, Reignard, Department of Structural Engineering, Consistent crack width calculation methods for reinforced concrete elements subjected to 1D and 2D stress states: a mixed experimental, numerical and analytical approach. PhD thesis. 2019

### **Politecnico di Milano, Univ. degli studi di Roma Tor Vergata and Bakaert Maccaferri Underground Solutions, Italy**

F. Lo Monte<sup>1</sup>, R. Felicetti<sup>1</sup>, A. Meda<sup>2</sup>, A. Bortolussi<sup>3</sup>:

<sup>1</sup> Politecnico di Milano

<sup>2</sup> Univ. degli studi di Roma Tor Vergata

<sup>3</sup> Bakaert Maccaferri Underground Solutions

Explosive Spalling in Reinforced Concrete Tunnels Exposed to Fire: Experimental Assessment and Numerical Modelling, WTC 2019 - Tunnels and Underground Cities: Engineering and Innovation meet Archeology, Architecture, 978 0429424441, Taylor & Francis, 14-4-2019.

### **Ruhr Univ. Bochum, Germany**

A.L. Hammer, M. Thewes: Numerical investigations on the system behaviour of a ductile shotcrete lining with yielding elements, WTC 2019 - Tunnels and Underground Cities: Engineering and Innovation meet Archeology, Architecture, 978 0429424441, Taylor & Francis, 14-4-2019.

### **TNO Applied Geosciences**

L. Buijze<sup>1,2</sup>, P.A.J. van der Bogert<sup>3</sup>, B.B.T. Wassing<sup>1</sup>, B. Orlic<sup>1</sup>:

<sup>1</sup> TNO

<sup>2</sup> Utrecht University

<sup>3</sup> Shell Global Solutions

Nucleation and Arrest of Dynamic Rupture Induced by Reservoir Depletion, JGR Solid Earth, 18-2-2019.

### **TU Braunschweig, Germany**

Marcel Wichert, Henrik Matz and Martin Empelmann, IBMB, Division of Concrete Construction, TU Braunschweig, Germany:

Grouted segment joints for structures made of ultra-high performance concrete, Proceedings of the *fib* Symposium 2019, Concrete – Innovations in Materials, Design and Structures.

### **Univ. Colorado, USA and Sharif Univ. of Technology, Iran**

J.W. Salamon<sup>1</sup>, M.A. Hariri-Ardebili<sup>2</sup>, H.E. Estekanchi, M.R. Masheykhi<sup>3</sup>:

<sup>1</sup> US Bureau of Reclamation

<sup>2</sup> Univ. Colorado

<sup>3</sup> Sharif Univ. of Technology:

Seismic assessment of a dam-foundation-reservoir system using Endurance Time Analysis, Proceedings of the ICOLD 2019 Symposium: Sustainable and Safe Dams Around the World, 9780429319778, Taylor & Friends, 6-9-2019.

### **University of Eindhoven**

P.R. Kuzin (University of Eindhoven), Design & Stability of Slender Concrete Columns Determination of the Nominal Stiffness including Physical and Geometrical Nonlinearity in the Finite Element Analysis, Reinforced Concrete Structures, 30-08-2019.

### **University of Minho, Portugal**

Reza Allahvirdizadeh, Daniel V. Oliveira, Rui A. Silva, ISISE, Department of Civil Engineering, University of Minho, Guimarães, Portugal. In-Plane Seismic Performance of Plain and TRM-Strengthened Rammed Earth Components, International Association for Bridge and Structural Engineering Symposium Guimarães, Portugal, March 27-29, 2019 Towards a Resilient Built Environment Risk and Asset Management, pp. 924-931.

Rafael Ramírez; Nuno Mendes; Paulo B. Lourenço, ISISE: Structural performance of the church of São Miguel de Refojos, International Association for Bridge and Structural Engineering Symposium Guimarães, Portugal, March 27-29, 2019 Towards a Resilient Built Environment Risk and Asset Management, pp. 1576-1583.

Neryvaldo Galvão, José Campos e Matos, Daniel Oliveira, Carlos Santos: Assessment of roadway bridges damaged by human errors using risk indicators and robustness index, International Association for Bridge and Structural Engineering Symposium Guimarães, Portugal, March 27-29, 2019 Towards a Resilient Built Environment Risk and Asset Management, pp. 236-243.

### **University of Minho and University of Madeira, Portugal**

José Sena-Cruz<sup>1</sup>, Luis Correia<sup>1</sup>, Paulo França<sup>2</sup>:

<sup>1</sup> ISISE, University of Minho, Guimarães, Portugal

<sup>2</sup> CERis, ICIST and FCEE, University of Madeira, Funchal, Portugal,

Behaviour of RC structures strengthened with prestressed CFRP laminates: a numerical study. Association for Bridge and Structural Engineering Symposium Guimarães, Portugal, March 27-29, 2019 Towards a Resilient Built Environment Risk and Asset Management, pp. 276-283

### **University of Technology, Opole, Poland**

Tomasz Maleska and Damian Beben:

Impact of Boundary Conditions on the Soil Steel Arch Bridge Behaviour Under Seismic Excitation, Proceedings of ARCH 2019, 9th International Conference on Arch Bridges PORTO OCTOBER 2-4, 2019 Portugal, pp.136-144.

### **University of Stellenbosch, South Africa**

M. Kotze, G.C. van Rooyen, G.P.A.G. van Zijl:

Retrofitting Unreinforced Masonry Buildings with a Strain-Hardening Cement-Based Composite to Enhance Seismic Resistance, 10th International Conference on Fracture Mechanics of Concrete and Concrete Structures FraMCoS-X, 1-6-2019.