

## 5. Publication list 2013

### ABT

Joostensz Bsc., Ostar, Hulst PMSe, Matthijs van der, "Detaileren met DIANA",  
Bouwen met Staal, December 2013.

### ARCADIS

Vliet, C. van der, A. de Boer, G. Wolsink. 2013. Dwarskrachtscheuren in het Gouwe  
Aquaduct? Cement 2013-4 p. 42-47. Uitgeverij Aeneas, Boxtel.

Vliet, C. van der, R. Lensen, F. Deurinck, G. Jonkheijm. 2013. Ontworpen op extremen  
(1) en (2). Cement 2013-4 p. 80-86 resp. Cement 2013-5 p. 58-63. Uitgeverij Aeneas,  
Boxtel.

Vliet, C. van der, R.W.M.G. Heijmans, F. Deurinck. 2013. The 2nd Coentunnel Project  
- Challenges for design and construction. Proceedings of the Arabian Tunnelling  
Conference 'Sustainable Tunnelling in the GCC - Challenges and Opportunities',  
Dubai, 11-13 Dec 2013

### Chalmers University

Coronelli, D. ; Zandi Hanjari, K. ; Lundgren, K. (2013). Severely Corroded RC with  
Cover Cracking. Journal of Structural Engineering-Asce. 139 (2) s. 221-232.

Fall, D. ; Rempling, R. ; Jansson, A. et al. (2013). Modelling cracking and bending  
failure of SFRC beams with conventional reinforcement, 8th International Conference  
on Fracture Mechanics of Concrete and Concrete Structures. s. 1276-1285.  
ISBN/ISSN: 978-849410041-3

Flansbjer, M. ; Lindqvist, J-E. ; Zandi Hanjari, K. et al. (2013). Mechanical  
behaviour of concrete piles affected by sulphate attack, Proceeding of the  
International IABSE Conference: Assessment, Upgrading and Refurbishment of  
Infrastructures, May 6-8, 2013, Rotterdam, The Netherlands. s. 556-557.

Williams Portal, N. ; Lundgren, K. ; Walter, A. M. et al. (2013). Numerical modeling  
of textile reinforced concrete, In 8th International Conference on Fracture  
Mechanics of Concrete and Concrete Structures, FramCoS-8, Toledo, Spain.

Zandi Hanjari, K. ; Kettil, P. ; Lundgren, K. (2013). Modelling the structural  
behaviour of frost-damaged reinforced concrete structures. Structure and  
Infrastructure Engineering. 9 (5) s. 416-431.

Zandi Hanjari, K. ; Lundgren, K. ; Plos, M. et al. (2013). Three-dimensional  
modelling of structural effects of corroding steel reinforcement in concrete.  
Structure and Infrastructure Engineering. 9 (7) s. 702-718.

## **Delft University of Technology**

### **ISI Journal Papers 2013**

Max A.N. Hendriks, Jan G. Rots, “Sequentially linear versus nonlinear analysis of RC structures”, *Engineering Computations*, 30 (issue 6), 2013, 792-801.

Giorgia Giardina, Anne V. van de Graaf, Max A.N. Hendriks, Jan G. Rots, Alessandra Marini, “Numerical analysis of a masonry facade subject to tunnelling-induced settlements”, *Engineering Structures*, 54, 2013, 234-247.

A.T. Slobbe, M.A.N. Hendriks, J.G. Rots, “Systematic assessment of directional mesh bias with periodic boundary conditions: applied to the crack band model” submitted to journal *Engineering Fracture Mechanics*, 109, 2013, 186-208.

B. Belletti, C. Damoni, J.A. den Uijl, M.A.N. Hendriks, J.C. Walraven, “Shear Resistance Evaluation of Prestressed Concrete Bridge Beams: fib Model Code Guidelines for Level IV Approximations”, *Structural Concrete*, 14 (No. 3), 2013, 242-249.

### **Non-ISI Journal Papers 2013**

Giorgia Giardina, Max Hendriks, Jan Rots, “Nieuw model geeft betere inschatting schade aan gebouwen”, *de Onderbouwing*, 6(15), 2013, 12-13.

### **Books, chapters 2013**

Beatrice Belletti, Cecilia Damoni, Max Hendriks, “Evaluation of the carrying capacity of reinforced concrete slabs subjected to concentrated loads near supports”, *Studies and Researches* (annual review of structural concrete, Graduate School in Concrete Structures, Fratelli Pesenti, Politecnico di Milano, Italy), 32, 2013, 131-154. ISBN 978-88-904292-6-2.

A.T. Slobbe, M.A.N. Hendriks, J.G. Rots, “A testing procedure for the evaluation of directional mesh bias”, VIII International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-8), J.G.M. Van Mier, G. Ruiz, C. Andrade, R.C. Yu and X.X. Zhang (Eds), 2013

B. Belletti, C. Damoni, M.A.N. Hendriks and J.A. den Uijl, “Nonlinear finite element analyses of reinforced concrete slabs: comparison of safety formats”, VIII International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-8), J.G.M. Van Mier, G. Ruiz, C. Andrade, R.C. Yu and X.X. Zhang (Eds), 2013.

R. Esposito and M.A.N. Hendriks, “Multiscale Material Model for ASR-affected Concrete Structures”, XII International Conference on Computational Plasticity. Fundamentals and Applications, Complas XII, E. Onate, D.R.J. Owen, D. Peric and B. Suarez (Eds), 2013

A.T. Slobbe, M.A.N. Hendriks and J.G. Rots, “C1 – continuous crack propagation across quadratic elements”, XII International Conference on Computational Plasticity. Fundamentals and Applications, Complas XII, E. Onate, D.R.J. Owen, D. Peric and B. Suarez (Eds), 2013

Jori Kappen, Giorgia Giardina, Max A.N. Hendriks and Jan G. Rots, “3D numerical analysis of tunnelling induced damage: the influence of the alignment of a masonry building with the tunnel axis”, Eurotun:2013, Proceedings of the third International Conference on Computational Methods in Tunneling and Subsurface Engineering, 2013.

H. Mortier, J.H. Jonker, J.G. Rots, G.J. Hobbelman, G. Giardina, M.A.N. Hendriks, “Increasing allowable deformation criteria through application of level II LTSM approach” in World Tunnel Congress 2013 Geneva, Underground – the way to the future! G. Anagnostou & H. Ehrbar (eds), 2013.

B. Belletti, C. Damoni, M.A.N. Hendriks, “Non-Linear Finite Element Analyses of Existing Reinforced Concrete Bridge Beams”, IABSE Symposium Report, IABSE Symposium, Rotterdam 2013: Assessment, Upgrading and Refurbishment of Infrastructures, pp. 1631-1638(8).

V. Mariani, A.T. Slobbe, M.A.N. Hendriks, J.G. Rots, “Application of sequentially linear analysis to the seismic assessment of slender masonry towers”, in “Research and Applications in Structural Engineering, Mechanics & Computation: Proceedings of the Fifth International Conference on Structural Engineering, Mechanics & Computation” (ISBN 978-1-138-00061-2).

J.G. Rots, M.A.N. Hendriks, A.T. Slobbe, A.V. van de Graaf, “Circumventing Bifurcations”, *Abstract only*, 3<sup>rd</sup> international conference on computational modeling of fracture and failure of materials and structures, CFRAC 2013, M. Jirásek, O. Allix, N. Moës, X. Oliver (Eds), Prague, June 5-7, 2013.

A.T. Slobbe, M.A.N. Hendriks, J.G. Rots, “C<sup>1</sup> - continuous crack propagation across quadratic elements”, *Abstract only*, 3<sup>rd</sup> international conference on computational modeling of fracture and failure of materials and structures, CFRAC 2013, M. Jirásek, O. Allix, N. Moës, X. Oliver (Eds), Prague, June 5-7, 2013.

R. Esposito, M.A.N. Hendriks, “Multiscale Material Model for ASR-affected Concrete Structures”, *Abstract only*, 3<sup>rd</sup> international conference on computational modeling of fracture and failure of materials and structures, CFRAC 2013, M. Jirásek, O. Allix, N. Moës, X. Oliver (Eds), Prague, June 5-7, 2013.

## **Ministry of Infrastructure and the Environment & Delft University of Technology**

dr.ir.drs. René Braam, dr.ir. Cor van der Veen dr.ir. Ane de Boer “Trekelementen in onderwaterbetonvloeren”, Cement 2013/3

E.O.L. Lantsoght, C. van der Veen & J.C. Walraven, A. de Boer, “Peak shear stress distribution in finite element models of concrete slabs”, SEMC 2013: The fifth international conference on structural engineering, mechanics and computation, 2-4 September 2013 Cape Town, South Africa

Eva O.L. Lantsoght, Cor van der Veen, Joost Walraven, Ane de Boer, “Applying Experimental Results to the Shear Assessment Method for Solid Slab Bridges”, Concrete 2013, Conference being held on the Gold Coast, Queensland, 16 – 18 October 2013

Eva O.L. LANTSOGHT Cor VAN DER VEEN Joost C. WALRAVEN Ane DE BOER, « Shear Assessment of Reinforced Concrete Slab Bridges”, Rotterdam IABSE May 2013

EVA O.L. LANTSOGHT, COR VAN DER VEEN, JOOST C. WALRAVEN, ANE DE BOER “Shear Assessment Practice for Reinforced Concrete Slab Bridges in the Netherlands”, IBC 2013 on June 2-6, 2013, in Pittsburgh, Pennsylvania

E.O.L. Lantsoght, C. van der Veen, A. de Boer, J.C. Walraven, “Transverse Load Redistribution and Effective Shear Width in Reinforced Concrete Slabs”, Heron 201?(in press)

Eva Olivia Leontien Lantsoght, Cor van der Veen, Joost Walraven, Ane de Boer, ‘Recommendations for the shear assessment of reinforced concrete slab bridges from experiments’, IABSE, SEI 4-2013

S. Amir, C. van der Veen, J. C. Walraven, A. de Boer, ‘Numerical investigation of the bearing capacity of transversely prestressed concrete deck slabs’, Euro-C, St. Anton Austria

### **Ministry of Infrastructure and the Environment & TNO DIANA BV**

Frissen, ir. C., Schreppers, Dr. ir. G.J., Boer, Dr. ir. A. de, Nieuwe aanpak bepaling wapening en scheurwijdten met brug bij Heteren, Cement, 2013/4.

Chantal Frissen, Ane de Boer Gerd-Jan Schreppers, “Design checks and nonlinear response of a full 3D model of a box girder bridge”, Rotterdam IABSE May 2013

### **Ministry of Infrastructure and the Environment & Delft University of Technology & TNO DIANA BV**

Boer, Dr. ir. A. de, Frissen, ir. C., Veen, Dr. ir. C. van der, Schreppers, Dr. ir. G.J., Improving the quality of structural concrete design, IABSE Workshop, Helsinki, Finland, February 14-15, 2013.

Dr.ir. A. de Boer, Dr.ir. C. van der Veen, Ir. C. Frissen, Dr.ir. G.J. Schreppers, “Full control of structural concrete design by NLFEA”, NAFEMS World Congress June 2013 Salzburg Austria

### **Ministry of Infrastructure and the Environment & RHDHV**

Rob VERGOOSSEN Marius NAAKTGEBOREN Marcel ‘T HART Ane DE BOER Evert VAN VUGT, “Quick Scan on Shear in Existing Slab Type Viaducts”, Rotterdam IABSE May 2013

## **Ministry of Infrastructure and the Environment & Arcadis**

Ane DE BOER, Nico BOOIJ, Paul COPIER, CRIAM: “Structural Risk Index Weighing Model”, Rotterdam IABSE May 2013

Coen VAN DER VLIET Ane DE BOER Gerrit WOLSINK, “Shear failure of 30-year-old aqueduct wall?”, Rotterdam IABSE May 2013

## **Ministry of Infrastructure and the Environment**

Ane de Boer “Modelling and quality improvements in 3D concrete design”, NAFEMS, London, Concrete Seminar May 2013

## **TNO Earth, Environmental and Life Sciences**

Conference papers:

Orlic, B., Wassing B.B.T., Geel, C.R. (2013). Field scale geomechanical modeling for prediction of fault stability during underground gas storage operations in a depleted gas field in the Netherlands. Proc. of the 47th US Rock Mechanics / Geomechanics Symposium (ARMA), San Francisco. Paper no ARMA 13-300.

Orlic, B. (2013). Site-specific geomechanical modeling for predicting stress changes around depleted gas reservoirs considered for CO<sub>2</sub> storage in the Netherlands. Proc. of the 47th US Rock Mechanics / Geomechanics Symposium (ARMA), San Francisco. Paper no ARMA 13-446.

Orlic B., Mazurowski M., Papiernik B., Nagy S. (2013). Assessing the geomechanical effects of CO<sub>2</sub> injection in a depleted gas field in Poland by field scale modelling. In M. Kwaśniewski, Łydźba, D. (Eds.), Proc. of EUROCK 2013 - The 2013 ISRM International Symposium. Wrocław, 21-26 September 2013, 969-975. Taylor & Francis Group: London. ISBN:978-1-138-00080-3.

Report:

Wassing, B.B.T., Orlic, B., Leeuwenburgh, O., Geel, C.R. (2014). 3D Geomechanical Modelling of Fault Stability in the Lacq Field. TNO2014 R10378 (confidential report).

## **TNO DIANA BV**

Schreppers, G.J., Elkadi, A., Numerical simulation of large dams. NAFEMS NORDIC Seminar: Numerical Simulation in Energy Applications, 5-6 February 2013.