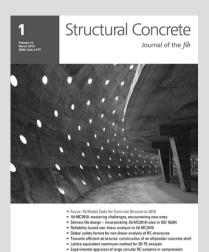
2013

Volume 14 No. 1-4 ISSN 1464-4177

Structural Concrete

Journal of the fib









Annual table of contents

Editor-in-Chief: Luc Taerwe

Deputy Editor: Steinar Helland

Members: György L. Balázs Josée Bastien Mikael Braestrup Tom d' Arcy Michael Fardis Stephen Foster
Sung Gul Hong
Tim Ibell
S.G. Joglekar
Akio Kasuga
Daniel A. Kuchma
Gaetano Manfredi
Pierre Rossi
Guilhemo Sales Melo
Petra Schumacher
Tamon Ueda
Yong Yuan





Structural Concrete: Annual table of contents Volume 14 (2013)

List of authors

(T = Technical Paper, E = Editorial)

Ahmad, Syed Ishtiaq; Tanabe, Tada-aki: Three-dimensional FF analysis of reinforced concrete structures using the lattice equivalent continuum method Allaix, Diego Lorenzo; Carbone, Vincenzo Ilario; Mancini, Giuseppe: Global safety format for non-linear analysis of reinforced concrete structures Anders, Isabel; see Müller, Harald S. Ayoub, Essam; Malek, Charles; Helmy, Gamal: Highlights of the design and construction of a	Issue 1		T	Borosnyói, Adorján; see Balázs, György L. Boulay, Claude; see Tailhan, Jean-Louis Breiner, Raphael; see Müller, Harald S. Burdet, Olivier; see Balázs, György L. Burns, Clare; see Balázs, György L. Carbone, Vincenzo Ilario; see Allaix, Diego Lorenzo Ceroni, Francesca; see Balázs, György L. Cervenka, Vladimir: Reliability-			
12 km elevated APM bridge project in Saudi Arabia Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi, Piergiorgio;	Issue 3	250–259	Т	based non-linear analysis according to fib Model Code 2010 Cervenka, Vladimir; see Balázs, György L. Chen, Cheng-Cheng; see Lee, Tai-Kuang Chiorino, Mario A.; see Balázs, György L.	Issue 1	19–28	Т
Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio Ozbolt, Josko; Pecce, Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic,				Clément, Thibault; Ramos, António Pinho; Fernández Ruiz, Miguel; Muttoni, Aurelio: Design for punching of prestressed concrete slabs Colombo, Matteo; see di Prisco, Marco Corres Peiretti, Hugo; see Pérez Caldentey, Alejandro Corres-Peiretti, Hugo: Sound	Issue 2	157–167	Т
Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to <i>fib</i> Model Code 2010	Issue 2	99–123	Т	engineering through conceptual design according to the <i>fib</i> Model Code 2010 Curbach, Manfred: Concrete light – possibilities and visions Curbach Manfred: see Zanuv.	Issue 2 Issue 2		T E
Code 2010 Balázs, György L.; see Walraven, Joost Belletti, Beatrice; Damoni, Cecilia; den Uijl, Joop A.; Hendriks, Max A. N.; Walraver Joost C.: Shear resistance evaluation of prestressed concrete bridge beams: fib Model Code 2010 guidelines for level IV approximations Bentz, Evan; see Muttoni, Aurelia Bentz, Evan; see Sigrist, Viktor Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 Bigaj-van Vliet, Agnieszka; see Matthews, Stuart Bisch, Philippe; see Balázs, György L.	Issue 3	99–123 242–249 309–319	T	Curbach, Manfred; see Zanuy, Carlos Damoni, Cecilia; see Belletti, Beatrice Davies, Robert; see Isaacs, Ben Debernardi, Piergiorgio; see Balázs, György L. den Uijl, Joop A.; see Belletti, Beatrice di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibrereinforced concrete in fib Model Code 2010: principles, models and test validation Dozio, Daniele; see di Prisco, Marco Dunn, Simon; see Isaacs, Ben Eckfeldt, Lars; see Balázs, György L. El-Badry, Mamdouh; see Balázs, György L. Fan, Yuhui; see Xiao, Jianzhuang	Issue 4	342–361	Т

Fardis, Michael N.: Performance- and displacement-based seismic design and assessment of con-				Lark, Robert; see Isaacs, Ben Le Maou, Fabrice; see Tailhan, Jean-Louis			
crete structures in <i>fib</i> Model Code 2010 Faria, Duarte M. Viúla; <i>see</i> Silva, Ricardo	Issue 3	215–229	T	Lee, Tai-Kuang; Chen, Cheng- Cheng; Pan, Austin D.E.; Hsiue, Kai-Yuan; Tsai, Wei- Ming; Hwa, Ken: Experimental			
Fehling, Ekkehard; see Balázs, György L. Fernández Ruiz, Miguel; see				evaluation of large circular RC columns under pure compression	Issue 1	60-68	Т
Clément, Thibault Fernández Ruiz, Miguel; see				Lenkei, Peter; see Balázs, György L.			
Muttoni, Aurelio Foster, Stephen J.; see Ng, Tian				Liaghat, Gholam Hossein; see Khazraiyan, Najmeh			
Sing Foster, Stephen: Physical under-				Lindorf, Alexander; see Zanuy, Carlos			
standings and development of mechanical models for the				Lorrain, Michel; see Balázs, György L.			
design of concrete structures Foster, Stephen J.; see Balázs,	Issue 3	193–194	E	Lu, Xilin; Yin, Xiaowei; Jiang, Huanjun: Restoring force model			
György L. Foster, Stephen; see Muttoni,				for steel reinforced concrete columns with high steel ratio	Issue 4	415-422	Т
Aurelio Foster, Stephen; see Sigrist, Viktor	•			Lurati, Franco; see Muttoni, Aurelio			
Ghali, Amin; see Balázs, György L.				Malek, Charles; see Ayoub, Essam Mancini, Giuseppe; see Allaix,			
Giraldo Soto, Alejandro; see Pérez Caldentey, Alejandro				Diego Lorenzo Martin, Eric; see Tailhan,			
Gribniak, Viktor; see Balázs, György L.				Jean-Louis Marí, Antonio; see Balázs,			
Guiglia, Matteo; see Balázs, György L.				György L. Matthews, Stuart; Bigaj-van Vliet,			
Helland, Steinar: Design for service life: implementation of <i>fib</i> Model Code 2010 rules in the				Agnieszka: Conservation of concrete structures according to fib Model Code 2010		362-377	Т
operational code ISO 16204 Helmy, Gamal; see Ayoub, Essam	Issue 1	10–18	T	Matthys, Stijn; see Triantafillou, Thanasis			
Hendriks, Max A. N.; see Belletti, Beatrice				Muttoni, Aurelio; Lurati, Franco; Fernández Ruiz, Miguel: Con-			
Hsiue, Kai-Yuan; see Lee, Tai-Kuang				crete shells – towards efficient structures: construction of an			
Hwa, Ken; see Lee, Tai-Kuang Ichinomiya, Toshimichi; see				ellipsoidal concrete shell in Switzerland	Issue 1	43-50	Т
Yamanobe, Shinichi Inácio, Micael; see Silva, Ricardo				Muttoni, Aurelio; Ruiz, Miguel Fernández; Bentz, Evan; Foster,			
Isaacs, Ben; Lark, Robert; Jefferson, Tony; Davies, Robert;				Stephen; Sigrist, Viktor: Background to <i>fib</i> Model Code 2010			
Dunn, Simon: Crack healing of cementitious materials using				shear provisions – part II: punching shear	Issue 3	204–214	Т
shrinkable polymer tendons Iskhakov, Iakov; Ribakov, Yuri:	Issue 2	138–147	T	Muttoni, Aurelio; see Clément, Thibault			
Two-layer concrete bridge beams as composite elements		271–277	Т	Muttoni, Aurelio; see Sigrist, Viktor			
Jefferson, Tony; see Isaacs, Ben	13346 3	2/1 2//	1	Müller, Harald S.: Sustainable			
Jiang, Huanjun; see Lu, Xilin Kaklauskas, Gintaris; see Balázs,				structural concrete – from today's approach to future			
György L.				challenge	Issue 4	299-300	E
Kanamitsu, Yoshihisa; see Yamanobe, Shinichi				Müller, Harald S.; Anders, Isabel; Breiner, Raphael; Vogel,			
Khazraiyan, Najmeh; Liaghat,				Michael: Concrete: treatment			
Gholam Hossein; Khodarahmi, Hossein: Normal impact of hard				of types and properties in <i>fib</i> Model Code 2010	Issue 4	320-334	Т
projectiles on concrete targets		176-183	T	Ng, Tian Sing; Foster, Stephen J.:	10000	020 001	^
Khodarahmi, Hossein; see Khazraiyan, Najmeh				Development of a mix design methodology for high-perform-			
Kim, Jung-Chul; see Seo, Tae-				ance geopolymer mortars	Issue 2	148-156	T
Seok Lark, Robert J.; see Balázs,				Ozbolt, Josko; see Balázs, György L.			
György L.				Gyorgy 1.			

4 Structural Concrete 14 www.ernst-und-sohn.de

Pan, Austin D.E.; see Lee, Tai- Kuang Pecce, Marisa; see Balázs, György L. Peset Iribarren, Joan; see Pérez Caldentey, Alejandro Phan, Thanh Song; Tailhan, Jean- Louis; Rossi, Pierre: 3D numeri cal modelling of concrete struc- tural element reinforced with ribbed flat steel rebars Pérez Caldentey, Alejandro; Corres Peiretti, Hugo; Peset Iribarren, Joan; Giraldo Soto, Alejandro: Cracking of RC members revisited: influence of	Issue 4	378–388	Т	Tailhan, Jean-Louis; Boulay, Claude; Rossi, Pierre; Le Maou, Fabrice; Martin, Eric: Compressive, tensile and bending basic creep behaviours related to the same concrete Tailhan, Jean-Louis; see Phan, Thanh Song Taliano, Maurizio; see Balázs, György L. Tanabe, Tada-aki; see Ahmad, Syed Ishtiaq Tawana, M.M.; see Xiao, Jianzhuang Tkalcic, Damir; see Balázs, György L.	Issue 2	124–130	Т
cover, $\phi/\rho_{s,ef}$ and stirrup spacing – an experimental and theoreti-				Torrenti, Jean Michel; see Balázs, György L.			
cal study Pérez Caldentey, Alejandro ; s <i>ee</i>	Issue 1	69–78	T	Torres, Lluis; see Balázs, György L.			
Balázs, György L.				Toutlemonde, François; see Balázs, György L.			
Ramos, A. Pinho; see Silva, Ricardo				Triantafillou, Thanasis; Matthys,			
Ramos, António Pinho; see Clément, Thibault				Stijn: Fibre-reinforced polymer reinforcement enters <i>fib</i> Model			
Randl, Norbert: Design recom-				Code 2010	Issue 4	335–341	T
mendations for interface shear transfer in <i>fib</i> Model Code 2010	Issue 3	230-241	T	Tsai, Wei-Ming; see Lee, Tai- Kuang			
Ribakov, Yuri; see Iskhakov,				Ueda, Tamon; see Balázs,			
Iakov Rossi, Pierre; see Phan, Thanh				György L. Vitek, Jan L.; see Balázs,			
Song				György L.			
Rossi, Pierre; see Tailhan, Jean-Louis				Vogel, Michael; see Müller, Harald S.			
Ruiz, Miguel Fernández; see Muttoni, Aurelio				Vrouwenvelder, Ton; see Bigaj-van Vliet, Agnieszka			
Ruiz, Miguel Fernández; see				Vráblík, Luká; see Balázs,			
Sigrist, Viktor Sagaseta, Juan: The influence of				György L. Walraven, Joost: fib Model Code			
aggregate fracture on the shear				for Concrete Structures 2010:			
strength of reinforced concrete beams: an experimental and ana	_			mastering challenges and encountering new ones	Issue 1	3-9	Т
lytical research project		401-414	T	Walraven, Joost; Balázs, György			
Saito, Kimio; see Yamanobe, Shinichi				L.: <i>fib</i> Model Code for Concrete Structures 2010: a landmark in			
Sakai, Koji: Sustainability in fib				an ongoing development	Issue 1	1–2	E
Model Code 2010 and its future perspective	Issue 4	301-308	T	Walraven, Joost C.; see Belletti, Beatrice			
Seo, Tae-Seok; Kim, Jung-Chul: Behaviour of concrete in a stress	,			Xiao, Jianzhuang; Fan, Yuhui; Tawana, M.M.: Residual com-			
continuity region after cracking)			pressive and flexural strength of			
under restrained drying shrink- age	Issue 2	131–137	Т	a recycled aggregate concrete following elevated temperatures	Issue 2	168_175	Т
Sigrist, Viktor; Bentz, Evan; Ruiz,	15540 2	131 137	1	Yamanobe, Shinichi; Saito,	155GC 2	100 175	•
Miguel Fernández; Foster, Stephen; Muttoni, Aurelio:				Kimio; Ichinomiya, Toshimichi; Kanamitsu, Yoshihisa: Bilateral			
Background to the fib Model				loading experiment on and			
Code 2010 shear provisions – part I: beams and slabs	Issue 3	195-203	T	analysis of concrete piers using mortar-jointed ultra-high-			
Sigrist, Viktor; see Muttoni, Aurelio				strength fibre-reinforced con-	Icano 7	279 200	Т
Silva, Ricardo; Faria, Duarte M.				crete precast formwork Yin, Xiaowei; see Lu, Xilin	188ue 3	278–290	1
Viúla; Ramos, A. Pinho; Inácio, Micael: A physical approach for				Zanuy, Carlos; Curbach, Manfred; Lindorf, Alexander:			
considering how anchorage head				Finite element study of bond			
size influences the punching capacity of slabs strengthened				strength between concrete and reinforcement under uneven			
with vertical steel bolts	Issue 4	389-400	T	confinement condition	Issue 3	260-270	T

Subject codes and keywords

Analysis and design methods			formats; reliability; <i>fib</i> Model	Iceno 1	10.29
Ahmad, Syed Ishtiaq; Tanabe, Tada-aki: Three-dimensional FE analysis of reinforced concrete			Code 2010] Clément, Thibault; Ramos, António Pinho; Fernández Ruiz, Miguel; Muttoni, Aurelio: Design for	Issue 1	19–28
structures using the lattice equivalent continuum method [finite element; three-dimension- al model; simulation; reinforced concrete; ultimate strength; con- crete structure; lattice; model] Allaix, Diego Lorenzo; Carbone, Vincenzo Ilario; Mancini, Giuseppe: Global safety format for non-linear analysis of rein-	Issue 1	51–59	punching of prestressed concrete slabs [punching; flat slab; slab bridge; prestressing; inplane forces; code predictions; Model Code 2010] di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-rein-	Issue 2	157–167
forced concrete structures [safety format; non-linear analysis; reinforced concrete structures; global resistance factors; Monte Carlo method] Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir;	Issue 1	29-42	forced concrete; constitutive equations; identification; modelling; structural characteristic length; structural behaviour; redundancy; structural design] Fardis, Michael N.: Performanceand displacement-based seismic design and assessment of concrete structures in fib Model		342–361
Chiorino, Mario A.; Debernardi, Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio; Ozbolt, Josko; Pecce,			Code 2010 [concrete structures; cyclic loading; displacement-based design; fib Model Code; performance-based design; seismic assessment; seismic design; seismic loading] Helland, Steinar: Design for service life: implementation of fib Model Code 2010 rules in the	Issue 3	215–229
Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design			operational code ISO 16204 [fib Model Code 2010; ISO 16204; service life design] Iskhakov, Iakov; Ribakov, Yuri: Two-layer concrete bridge beams as composite elements	Issue 1	10–18
for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations;			[high-performance concrete element; high-strength concrete; bridge beams; fibre-reinforced concrete] Khazraiyan, Najmeh; Liaghat, Gholam Hossein; Khodarahmi, Hossein: Normal impact of hard projectiles on concrete	Issue 3	271–277
fib Model Code 2010] Belletti, Beatrice; Damoni, Cecilia; den Uijl, Joop A.; Hendriks, Max A. N.; Walraven, Joost C.: Shear resistance evaluation of prestressed concrete bridge beams: fib Model Code 2010 guidelines		99–123	targets [perforation process; concrete structure; analytical model; hemispherical rigid projectile] Lu, Xilin; Yin, Xiaowei; Jiang, Huanjun: Restoring force model for steel reinforced concrete columns with high steel ratio	Issue 2	176–183
for level IV approximations [shear resistance; safety levels; non-linear finite element analy- ses; prestressed beams; guide- lines] Cervenka, Vladimir: Reliability-		242-249	[SRC; high ratio of encased steel; restoring force model; skeleton curve] Ng, Tian Sing; Foster, Stephen J.: Development of a mix design methodology for high-performance geopolymer mortars		415–422
based non-linear analysis according to fib Model Code 2010 [non-linear analysis; safety			[geopolymer mortar; fly ash; mix design; compressive strength]	Issue 2	148-156

6 Structural Concrete 14 www.ernst-und-sohn.de

Phan, Thanh Song; Tailhan, Jean-Louis; Rossi, Pierre: 3D numerical modelling of concrete structural element reinforced with ribbed flat steel rebars [reinforced concrete structures; flat steel rebar; concrete/rebar bond; cracking] Issue 4 378-388 Randl, Norbert: Design recommendations for interface shear transfer in fib Model Code 2010 [interface shear; dowel action; bond; aggregate interlock] Issue 3 230-241 Sagaseta, Juan: The influence of aggregate fracture on the shear strength of reinforced concrete beams: an experimental and analytical research project [shear strength; aggregate interlock; high-performance concrete; strut-and-tie method; nonlinear finite element analysis Issue 4 401-414 Sigrist, Viktor; Bentz, Evan; Ruiz, Miguel Fernández: Foster, Stephen; Muttoni, Aurelio: Background to the fib Model Code 2010 shear provisions part I: beams and slabs [fib; Model Code; prestressed concrete; reinforced concrete; shear; design Issue 3 195-203 Silva, Ricardo; Faria, Duarte M. Viúla; Ramos, A. Pinho; Inácio, Micael: A physical approach for considering how anchorage head size influences the punching capacity of slabs strengthened with vertical steel bolts [punching; physical models; concrete crushing; anchorage; vertical steel bolts; strengthening; flat Issue 4 389-400 slabs] Tailhan, Jean-Louis; Boulay, Claude; Rossi, Pierre; Le Maou, Fabrice; Martin, Eric: Compressive, tensile and bending basic creep behaviours related to the same concrete [concrete; creep; compression; tension; bending Issue 2 124-130 Triantafillou, Thanasis; Matthys, Stijn: Fibre-reinforced polymer reinforcement enters fib Model Code 2010 [fibre-reinforced polymers; fib Model Code 2010; reinforcement; strengthening] Issue 4 335-341 Zanuy, Carlos; Curbach, Manfred; Lindorf, Alexander: Finite element study of bond strength between concrete and reinforcement under uneven confinement condition [bond; confinement; finite element analysis; pull-out test; transverse tension] Issue 3 260-270

Anchorage

Silva, Ricardo; Faria, Duarte M.
Viúla; Ramos, A. Pinho; Inácio,
Micael: A physical approach for
considering how anchorage
head size influences the punching capacity of slabs strengthened with vertical steel bolts
[punching; physical models; concrete crushing; anchorage; vertical steel bolts; strengthening; flat
slabs]

Issue 4 389–400
Zanuy, Carlos; Curbach, Manfred;
Lindorf, Alexander: Finite element study of bond strength

Zanuy, Carlos; Curbach, Manfred;
Lindorf, Alexander: Finite element study of bond strength
between concrete and reinforcement under uneven
confinement condition [bond;
confinement; finite element
analysis; pull-out test; transverse
tension]

Issue 3 260–270

Art of engineering

Corres-Peiretti, Hugo: Sound engineering through conceptual design according to the fib Model Code 2010 [conceptual design; fib Model Code 2010; concrete structures Issue 2 89-98 Muttoni, Aurelio; Lurati, Franco; Fernández Ruiz, Miguel: Concrete shells - towards efficient structures: construction of an ellipsoidal concrete shell in Switzerland [shell; concrete structure; design; sprayed concrete; fibre-reinforced concrete; architecture] Issue 1 43-50

Bridge construction

Ayoub, Essam; Malek, Charles; Helmy, Gamal: Highlights of the design and construction of a 12 km elevated APM bridge project in Saudi Arabia [precast construction; bridges; prestressing: stress analysis: unsymmetrical beam; box girder; curved structure Issue 3 250-259 Iskhakov, Iakov; Ribakov, Yuri: Two-layer concrete bridge beams as composite elements [high-performance concrete element; high-strength concrete; bridge beams; fibre-reinforced concretel Issue 3 271-277 Yamanobe, Shinichi; Saito, Kimio; Ichinomiya, Toshimichi; Kanamitsu, Yoshihisa: Bilateral loading experiment on and analysis

7

of concrete piers using mortarjointed ultra-high-strength fibre-reinforced concrete precast formwork [damage-free

bridge pier: ultra-high-strength fibre-reinforced concrete; precast

formworkl Issue 3 278-290

Building maintenance/refurbishment

Matthews, Stuart; Bigaj-van Vliet, Agnieszka: Conservation of concrete structures according to fib Model Code 2010 [conservation; assessment; evaluation; condition control: intervention:

fib Model Code 2010] Issue 4 362-377

Building materials/construction materials

Ahmad, Syed Ishtiag; Tanabe, Tada-aki: Three-dimensional FE analysis of reinforced concrete structures using the lattice equivalent continuum method [finite element; three-dimensional model; simulation; reinforced concrete; ultimate strength; concrete structure; lattice; model]

Issue 1 51-59

di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-reinforced concrete: constitutive equations; identification; modelling: structural characteristic length; structural behaviour; redundancy; structural design]

Issue 4 342-361

Isaacs, Ben; Lark, Robert; Jefferson, Tony; Davies, Robert; Dunn, Simon: Crack healing of cementitious materials using shrinkable polymer tendons [crack closure; autogenous healing; durability; polymer

tendons] Issue 2 138-147

Müller, Harald S.; Anders, Isabel; Breiner, Raphael; Vogel, Michael: Concrete: treatment of types and properties in fib Model Code 2010 [fib; Model Code 2010; structural concrete; concrete properties; material models; creep and shrinkage; durability; service life design

Issue 4 320-334

Ng, Tian Sing; Foster, Stephen J.: Development of a mix design methodology for high-performance geopolymer mortars [geopolymer mortar; fly ash; mix design; compressive strength]

Issue 2 148-156

Phan, Thanh Song; Tailhan, Jean-Louis; Rossi, Pierre: 3D numerical modelling of concrete structural element reinforced with ribbed flat steel rebars [reinforced concrete structures; flat steel rebar; concrete/rebar bond; cracking]

Issue 4 378-388

Seo, Tae-Seok; Kim, Jung-Chul: Behaviour of concrete in a stress continuity region after cracking under restrained drying shrinkage [shrinkage; uniaxial restrained specimen; stress continuity region; bond analysis; effective tensile Young's modulus Issue 2 131-137

Tailhan, Jean-Louis; Boulay, Claude; Rossi, Pierre; Le Maou, Fabrice; Martin, Eric: Compressive, tensile and bending basic creep behaviours related to the

same concrete [concrete; creep; compression; tension; bending Issue 2 124–130

Xiao, Jianzhuang; Fan, Yuhui; Tawana, M.M.: Residual compressive and flexural strength of a recycled aggregate concrete following elevated temperatures [recycled aggregate concrete (RAC); recycled coarse aggregates (RCAs); residual compressive strength; residual flexural strength; elevated temperaturel

Issue 2 168-175

Design and construction

Ayoub, Essam; Malek, Charles; Helmy, Gamal: Highlights of the design and construction of a 12 km elevated APM bridge project in Saudi Arabia [precast construction; bridges; prestressing; stress analysis; unsymmetrical beam; box girder; curved

Issue 3 250-259

structure Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi, Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris: Lark. Robert I.: Lenkei. Peter; Lorrain, Michel; Marí, Antonio; Ozbolt, Josko; Pecce, Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations; fib Model Code 2010]

Issue 2 99-123

Structural Concrete 14 www.ernst-und-sohn.de Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 [concrete structures; design and assessment; fib Model Code 2010; performance-based approach; performance requirements; reliability management Issue 4 309-319 Corres-Peiretti, Hugo: Sound engineering through conceptual design according to the fib Model Code 2010 [conceptual design; fib Model Code 2010; concrete structures Issue 2 89-98 Helland, Steinar: Design for service life: implementation of fib Model Code 2010 rules in the operational code ISO 16204 [fib Model Code 2010; ISO 16204; Issue 1 10-18 service life design] Isaacs, Ben; Lark, Robert; Jefferson, Tony; Davies, Robert; Dunn, Simon: Crack healing of cementitious materials using shrinkable polymer tendons [crack closure; autogenous healing; durability; polymer tendonsl Issue 2 138-147 Iskhakov, Iakov; Ribakov, Yuri: Two-layer concrete bridge beams as composite elements [high-performance concrete element; high-strength concrete; bridge beams; fibre-reinforced concrete Issue 3 271-277 Lee, Tai-Kuang; Chen, Cheng-Cheng; Pan, Austin D.E.; Hsiue, Kai-Yuan; Tsai, Wei-Ming; Hwa, Ken: Experimental evaluation of large circular RC columns under pure compression [reinforced concrete; circular column; spiral; circular tie] Issue 1 60-68 Muttoni, Aurelio; Lurati, Franco; Fernández Ruiz, Miguel: Concrete shells - towards efficient structures: construction of an ellipsoidal concrete shell in Switzerland [shell; concrete structure; design; sprayed concrete; fibre-reinforced concrete; architecture] Issue 1 43-50 Müller, Harald S.; Anders, Isabel; Breiner, Raphael; Vogel, Michael: Concrete: treatment of types and properties in fib Model Code 2010 [fib; Model Code 2010; structural concrete; concrete properties; material models; creep and shrinkage; durability; service life design] Issue 4 320–334 Pérez Caldentey, Alejandro; Corres Peiretti, Hugo; Peset Iribarren, Joan; Giraldo Soto, Alejandro: Cracking of RC members revisited: influence of cover, $\phi/\rho_{s,ef}$ and stirrup spacing - an experimental and theoretical study

[cracking; $\phi/\rho_{s,ef}$; cover; influence of stirrups Issue 1 69-78 Sakai, Koji: Sustainability in fib Model Code 2010 and its future perspective [concrete; CO₂; energy; fib Model Code 2010; resources; safety; sustainability Issue 4 301-308 Tailhan, Jean-Louis; Boulay, Claude: Rossi, Pierre: Le Maou, Fabrice: Martin, Eric: Compressive, tensile and bending basic creep behaviours related to the same concrete [concrete; creep; compression; tension; bending] Issue 2 124-130 Yamanobe, Shinichi; Saito, Kimio; Ichinomiya, Toshimichi; Kanamitsu, Yoshihisa: Bilateral loading experiment on and analysis of concrete piers using mortarjointed ultra-high-strength fibre-reinforced concrete precast formwork [damage-free bridge pier; ultra-high-strength fibre-reinforced concrete; precast formwork] Issue 3 278-290

Directives

Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi, Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio; Ozbolt, Josko; Pecce, Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations; fib Issue 2 99-123 Model Code 2010] Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 [concrete structures; design and assessment; fib Model Code 2010; performance-based approach; performance requirements; reliability management] Issue 4 309–319 Clément, Thibault; Ramos, António Pinho; Fernández Ruiz, Miguel;

Muttoni, Aurelio: Design for

9

punching of prestressed concrete slabs [punching; flat slab; slab bridge; prestressing; inplane forces; code predictions; Issue 2 157-167 Model Code 2010] di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-reinforced concrete; constitutive equations; identification; modelling; structural characteristic length; structural behaviour; redundancy; structural design] Issue 4 342-361 Müller, Harald S.; Anders, Isabel; Breiner, Raphael; Vogel, Michael: Concrete: treatment of types and properties in fib Model Code 2010 [fib; Model Code 2010; structural concrete; concrete properties; material models; creep and shrinkage; durability; service life design] Issue 4 320-334 Sagaseta, Juan: The influence of aggregate fracture on the shear

strength of reinforced concrete beams: an experimental and analytical research project [shear strength; aggregate interlock; high-performance concrete; strut-and-tie method; non-

linear finite element analysis] Issue 4 401-414

Dynamic actions/earthquakes

Fardis, Michael N.: Performanceand displacement-based seismic design and assessment of concrete structures in fib Model Code 2010 [concrete structures; cyclic loading; displacementbased design; fib Model Code; performance-based design; seismic assessment; seismic design; seismic loading Issue 3 215-229 Khazraiyan, Najmeh; Liaghat, Gholam Hossein; Khodarahmi, Hossein: Normal impact of hard projectiles on concrete targets [perforation process; concrete structure; analytical model; hemispherical rigid projectile] Issue 2 176-183 Lu, Xilin; Yin, Xiaowei; Jiang, Huanjun: Restoring force model for steel reinforced concrete columns with high steel ratio

Eurocode

10

curve

Allaix, Diego Lorenzo; Carbone, Vincenzo Ilario; Mancini, Giuseppe: Global safety format for non-linear analysis of rein-

[SRC; high ratio of encased steel;

restoring force model; skeleton

forced concrete structures [safety format; non-linear analysis; reinforced concrete structures; global resistance factors; Monte Carlo method]

Fardis, Michael N.: Performanceand displacement-based seismic design and assessment of concrete structures in fib Model Code 2010 [concrete structures;

cyclic loading; displacementbased design; fib Model Code; performance-based design; seismic assessment; seismic design; seismic loading

Sagaseta, Juan: The influence of aggregate fracture on the shear strength of reinforced concrete beams: an experimental and analytical research project [shear strength; aggregate inter-

lock; high-performance concrete; strut-and-tie method; nonlinear finite element analysis

Issue 4 401-414

Issue 1 29-42

Issue 3 215-229

Execution of construction works

Muttoni, Aurelio; Lurati, Franco; Fernández Ruiz, Miguel: Concrete shells - towards efficient structures: construction of an ellipsoidal concrete shell in Switzerland [shell; concrete structure; design; sprayed concrete; fibre-reinforced concrete; architecturel

Issue 1 43-50

Sakai, Koji: Sustainability in fib Model Code 2010 and its future perspective [concrete; CO₂; energy; fib Model Code 2010; resources; safety; sustainability] Issue 4 301-308

and displacement-based seis-

mic design and assessment of

concrete structures in fib Model

fib Model Code 2010

Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 [concrete structures; design and assessment; fib Model Code 2010; performance-based approach; performance requirements; reliability management Issue 4 309-319 di Prisco, Marco: Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-reinforced concrete; constitutive equations; identification; modelling; structural characteristic length; structural behaviour; redundancy; structural design] Issue 4 342-361 Fardis, Michael N.: Performance-

Structural Concrete 14 www.ernst-und-sohn.de

Issue 4 415-422

11

Code 2010 [concrete structures: mastering challenges and cyclic loading; displacementencountering new ones [conbased design; fib Model Code; crete; structures; codes; recomperformance-based design; seismendations; future developmic assessment; seismic design; ments; fib Model Code 2010] Issue 1 3-9 Issue 3 215-229 seismic loading Matthews, Stuart; Bigaj-van Vliet, Agnieszka: Conservation of Fire protection concrete structures according to fib Model Code 2010 [conser-Xiao, Jianzhuang; Fan, Yuhui; vation; assessment; evaluation; Tawana, M.M.: Residual comcondition control; intervention; pressive and flexural strength Issue 4 362-377 fib Model Code 2010 of a recycled aggregate con-Muttoni, Aurelio; Ruiz, Miguel Fercrete following elevated temnández; Bentz, Evan; Foster, peratures [recycled aggregate Stephen; Sigrist, Viktor: Backconcrete (RAC); recycled coarse ground to fib Model Code 2010 aggregates (RCAs); residual comshear provisions - part II: pressive strength; residual flexurpunching shear [fib Model Code al strength; elevated tempera-2010; punching shear; flat slabs; Issue 2 168-175 critical shear crack theory; level of approximation Issue 3 204-214 Randl, Norbert: Design recom-General mendations for interface shear transfer in fib Model Code 2010 Allaix, Diego Lorenzo; Carbone, [interface shear; dowel action; Vincenzo Ilario; Mancini, bond; aggregate interlock] Issue 3 230-241 Giuseppe: Global safety format Sagaseta, Juan: The influence of for non-linear analysis of reinaggregate fracture on the shear forced concrete structures [safestrength of reinforced concrete ty format; non-linear analysis; beams: an experimental and reinforced concrete structures; analytical research project global resistance factors; Monte [shear strength; aggregate inter-Carlo methodl Issue 1 29-42 lock; high-performance con-Cervenka, Vladimir: Reliabilitycrete; strut-and-tie method; nonbased non-linear analysis linear finite element analysis] Issue 4 401-414 according to fib Model Code Sakai, Koji: Sustainability in fib 2010 [non-linear analysis; safety Model Code 2010 and its future formats; reliability; fib Model perspective [concrete; CO₂; Code 2010] Issue 1 19-28 energy; fib Model Code 2010; Corres-Peiretti, Hugo: Sound engiresources; safety; sustainability Issue 4 301-308 neering through conceptual Sigrist, Viktor; Bentz, Evan; Ruiz, design according to the fib Miguel Fernández; Foster, Model Code 2010 [conceptual Stephen; Muttoni, Aurelio: design; fib Model Code 2010; Background to the fib Model Issue 2 89-98 concrete structures Code 2010 shear provisions -Khazraiyan, Najmeh; Liaghat, part I: beams and slabs [fib; Gholam Hossein; Khodarahmi, Model Code; prestressed con-Hossein: Normal impact of crete; reinforced concrete; shear; hard projectiles on concrete Issue 3 195-203 designl targets [perforation process; con-Silva, Ricardo: Faria, Duarte M. crete structure; analytical model; Viúla: Ramos, A. Pinho: Inácio, Issue 2 176-183 hemispherical rigid projectile Micael: A physical approach for Matthews, Stuart; Bigaj-van Vliet, considering how anchorage Agnieszka: Conservation of head size influences the punchconcrete structures according ing capacity of slabs strengthto fib Model Code 2010 [conserened with vertical steel bolts vation; assessment; evaluation; [punching; physical models; concondition control; intervention; crete crushing; anchorage; vertifib Model Code 2010] Issue 4 362-377 cal steel bolts; strengthening; flat Ng, Tian Sing; Foster, Stephen J.: slabs] Issue 4 389-400 Development of a mix design Triantafillou, Thanasis; Matthys, methodology for high-perform-Stijn: Fibre-reinforced polymer ance geopolymer mortars reinforcement enters fib Model [Geopolymer mortar; Fly ash; Code 2010 [fibre-reinforced mix design; Compressive polymers; fib Model Code 2010; strength] Issue 2 148–156 reinforcement; strengthening] Issue 4 335-341 Seo, Tae-Seok; Kim, Jung-Chul: Walraven, Joost: fib Model Code Behaviour of concrete in a for Concrete Structures 2010: stress continuity region after

cracking under restrained drying shrinkage [shrinkage; uniaxial restrained specimen; stress continuity region; bond analysis; effective tensile Young's modulus]

Issue 2 131–137

Walraven, Joost: fib Model Code for Concrete Structures 2010: mastering challenges and encountering new ones [concrete; structures; codes; recommendations; future developments; fib Model Code 2010]

Issue 1 3–9

Guidelines

Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi, Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio; Ozbolt, Josko; Pecce, Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations; fib Model Code 2010

Issue 2 99–123

Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 [concrete structures; design and assessment; fib Model Code 2010; performance-based approach; performance require-

ments; reliability management] Issue 4 309–319

Clément, Thibault; Ramos, António Pinho; Fernández Ruiz, Miguel; Muttoni, Aurelio: **Design for punching of prestressed concrete slabs** [punching; flat slab; slab bridge; prestressing; inplane forces; code predictions; Model Code 2010]

Issue 2 157–167

di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-reinforced concrete; constitutive equations; identification; modelling; structural characteristic length; structural behaviour; redundancy; structural design] Issue 4 342–361 Müller, Harald S.; Anders, Isabel; Breiner, Raphael; Vogel, Michael: Concrete: treatment of types and properties in fib Model Code 2010 [fib; Model Code 2010; structural concrete; concrete properties; material models; creep and shrinkage;

Sagaseta, Juan: The influence of aggregate fracture on the shear strength of reinforced concrete beams: an experimental and analytical research project [shear strength; aggregate interlock; high-performance concrete; strut-and-tie method; non-

durability; service life design]

linear finite element analysis Issue 4 401–414

Issue 4 320-334

Issue 3 250-259

Prestressed concrete

Ayoub, Essam; Malek, Charles; Helmy, Gamal: Highlights of the design and construction of a 12 km elevated APM bridge project in Saudi Arabia [precast construction; bridges; prestressing; stress analysis; unsymmetrical beam; box girder; curved structure]

Belletti, Beatrice; Damoni, Cecilia; den Uijl, Joop A.; Hendriks, Max A. N.; Walraven, Joost C.: Shear resistance evaluation of prestressed concrete bridge beams: fib Model Code 2010 guidelines for level IV approximations

[shear resistance; safety levels; non-linear finite element analyses; prestressed beams; guidelines]

lines] Issue 3 242–249
Clément, Thibault; Ramos, António
Pinho; Fernández Ruiz, Miguel;
Muttoni, Aurelio: Design for
punching of prestressed concrete slabs [punching; flat slab;

slab bridge; prestressing; inplane forces; code predictions; Model Code 2010]

Iskhakov, Iakov; Ribakov, Yuri:

Two-layer concrete bridge beams as composite elements [high-performance concrete element; high-strength concrete; bridge beams; fibre-reinforced concrete]

Issue 3 271–277

Issue 2 157-167

Regulations

Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi,

12 Structural Concrete 14 www.ernst-und-sohn.de

Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio: Ozbolt, Josko: Pecce. Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations; fib Model Code 2010 Issue 2 99-123 Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based concept of fib Model Code 2010 [concrete structures; design and assessment; fib Model Code 2010; performance-based approach; performance requirements; reliability management] Issue 4 309–319 Clément, Thibault; Ramos, António Pinho; Fernández Ruiz, Miguel; Muttoni, Aurelio: Design for punching of prestressed concrete slabs [punching; flat slab; slab bridge; prestressing; inplane forces; code predictions; Model Code 2010] Issue 2 157-167 di Prisco, Marco; Colombo, Matteo; Dozio, Daniele: Fibre-reinforced concrete in fib Model Code 2010: principles, models and test validation [fibre-reinforced concrete; constitutive equations; identification; modelling: structural characteristic length; structural behaviour; redundancy; structural design] Issue 4 342-361 Müller, Harald S.; Anders, Isabel; Breiner, Raphael: Vogel, Michael: Concrete: treatment of types and properties in fib Model Code 2010 [fib: Model Code 2010; structural concrete; concrete properties; material models; creep and shrinkage; durability; service life design] Issue 4 320-334 Sagaseta, Juan: The influence of aggregate fracture on the shear

strength of reinforced concrete

[shear strength; aggregate inter-

crete; strut-and-tie method; non-

beams: an experimental and

analytical research project

lock: high-performance con-

linear finite element analysis]

Reinforcement

Ahmad, Sved Ishtiag; Tanabe, Tada-aki: Three-dimensional FE analysis of reinforced concrete structures using the lattice equivalent continuum method [finite element; three-dimensional model; simulation; reinforced concrete; ultimate strength; concrete structure; lattice; model Issue 1 51-59 Pérez Caldentey, Alejandro; Corres Peiretti, Hugo; Peset Iribarren, Joan; Giraldo Soto, Alejandro: Cracking of RC members revisited: influence of cover, $\phi/\rho_{s,ef}$ and stirrup spacing - an experimental and theoretical study [cracking; $\phi/\rho_{s,ef}$; cover; influence of stirrups Issue 1 69-78 Phan, Thanh Song; Tailhan, Jean-Louis; Rossi, Pierre: 3D numerical modelling of concrete structural element reinforced with ribbed flat steel rebars [reinforced concrete structures; flat steel rebar; concrete/rebar bond; cracking Issue 4 378-388 Triantafillou, Thanasis; Matthys, Stijn: Fibre-reinforced polymer reinforcement enters fib Model Code 2010 [fibre-reinforced polymers; fib Model Code 2010; reinforcement; strengthening Issue 4 335-341

Standards

Balázs, György L.; Bisch, Philippe; Borosnyói, Adorján; Burdet, Olivier; Burns, Clare; Ceroni, Francesca; Cervenka, Vladimir; Chiorino, Mario A.; Debernardi, Piergiorgio; Eckfeldt, Lars; El-Badry, Mamdouh; Fehling, Ekkehard; Foster, Stephen J.; Ghali, Amin; Gribniak, Viktor; Guiglia, Matteo; Kaklauskas, Gintaris; Lark, Robert J.; Lenkei, Peter; Lorrain, Michel; Marí, Antonio; Ozbolt, Josko; Pecce, Marisa; Pérez Caldentey, Alejandro; Taliano, Maurizio; Tkalcic, Damir; Torrenti, Jean Michel; Torres, Lluis; Toutlemonde, François; Ueda, Tamon; Vitek, Jan L.; Vráblík, Luká: Design for SLS according to fib Model Code 2010 [MC2010; SLS; serviceability; cracking; crack control; crack width limits; appearance; tightness; durability; bond; concrete cover; tension stiffening; deflection; span-depth ratio; long-term deformations; fib Model Code 2010] Issue 2 99-123 Bigaj-van Vliet, Agnieszka; Vrouwenvelder, Ton: Reliability in the performance-based con-

13

www.ernst-und-sohn.de Structural Concrete 14

Issue 4 401-414

based non-linear analysis

according to fib Model Code

formats; reliability; fib Model

Fardis, Michael N.: Performance-

and displacement-based seis-

mic design and assessment of

concrete structures in fib Model

Code 2010 [concrete structures; cyclic loading; displacement-

Code 2010]

2010 [non-linear analysis; safety

cept of fib Model Code 2010 based design; fib Model Code; [concrete structures; design and performance-based design; seisassessment; fib Model Code mic assessment; seismic design; 2010; performance-based Issue 3 215-229 seismic loading approach; performance require-Helland, Steinar: Design for servments; reliability management] ice life: implementation of fib Issue 4 309-319 Clément, Thibault; Ramos, António Model Code 2010 rules in the Pinho; Fernández Ruiz, Miguel; operational code ISO 16204 [fib Muttoni, Aurelio: Design for Model Code 2010; ISO 16204; punching of prestressed conservice life design] Issue 1 10-18 crete slabs [punching; flat slab; Lee, Tai-Kuang; Chen, Cheng-Cheng; Pan, Austin D.E.; Hsiue, slab bridge; prestressing; inplane forces; code predictions; Kai-Yuan; Tsai, Wei-Ming; Hwa, Issue 2 157-167 Ken: Experimental evaluation Model Code 2010 di Prisco, Marco; Colombo, Matof large circular RC columns teo; Dozio, Daniele: Fibre-reinunder pure compression [reinforced concrete in fib Model forced concrete; circular col-Code 2010: principles, models umn; spiral; circular tie] Issue 1 60-68 and test validation [fibre-rein-Muttoni, Aurelio; Ruiz, Miguel forced concrete: constitutive Fernández; Bentz, Evan; Foster, equations; identification; model-Stephen; Sigrist, Viktor: Backling; structural characteristic ground to fib Model Code 2010 length; structural behaviour; shear provisions - part II: redundancy; structural design] Issue 4 342-361 punching shear [fib Model Code Müller, Harald S.; Anders, Isabel; 2010; punching shear; flat slabs; Breiner, Raphael; Vogel, critical shear crack theory; level Michael: Concrete: treatment of of approximation] Issue 3 204-214 types and properties in fib Sigrist, Viktor; Bentz, Evan; Ruiz, Model Code 2010 [fib; Model Miguel Fernández; Foster, Code 2010; structural concrete; Stephen; Muttoni, Aurelio: concrete properties; material Background to the fib Model models; creep and shrinkage; Code 2010 shear provisions durability; service life design] part I: beams and slabs [fib; Issue 4 320-334 Model Code; prestressed con-Sagaseta, Juan: The influence of aggregate fracture on the shear crete; reinforced concrete; shear; strength of reinforced concrete design Issue 3 195-203 beams: an experimental and Walraven, Joost: fib Model Code analytical research project for Concrete Structures 2010: [shear strength; aggregate intermastering challenges and lock; high-performance conencountering new ones [concrete; strut-and-tie method; noncrete; structures; codes; recomlinear finite element analysis] Issue 4 401-414 mendations; future developments; fib Model Code 2010] Issue 1 3-9 Standards, regulations, guidelines, directives **Testing/experiments** Belletti, Beatrice; Damoni, Cecilia; den Uijl, Joop A.; Hendriks, Max Isaacs, Ben; Lark, Robert; Jeffer-A. N.; Walraven, Joost C.: Shear son, Tony; Davies, Robert; resistance evaluation of pre-Dunn, Simon: Crack healing of stressed concrete bridge beams: cementitious materials using fib Model Code 2010 guidelines shrinkable polymer tendons for level IV approximations [crack closure; autogenous [shear resistance; safety levels; healing; durability; polymer non-linear finite element analytendons Issue 2 138-147 ses; prestressed beams; guide-Lee, Tai-Kuang; Chen, Chenglinesl Issue 3 242-249 Cheng; Pan, Austin D.E.; Hsiue, Cervenka, Vladimir: Reliability-Kai-Yuan; Tsai, Wei-Ming; Hwa,

14 Structural Concrete 14 www.ernst-und-sohn.de

Issue 1 19-28

Ken: Experimental evaluation

of large circular RC columns

under pure compression [rein-

Huanjun: Restoring force model

for steel reinforced concrete

columns with high steel ratio [SRC; high ratio of encased steel;

Issue 1 60-68

forced concrete; circular col-

umn; spiral; circular tie]

Lu, Xilin; Yin, Xiaowei; Jiang,

restoring force model; skeleton Issue 4 415-422 curvel Pérez Caldentey, Alejandro; Corres Peiretti, Hugo; Peset Iribarren, Joan; Giraldo Soto, Alejandro: Cracking of RC members revisited: influence of cover, $\phi/\rho_{s,ef}$ and stirrup spacing - an experimental and theoretical study [cracking; $\phi/\rho_{s,ef}$; cover; influence of stirrups Issue 1 69-78 Randl, Norbert: Design recommendations for interface shear transfer in fib Model Code 2010 [interface shear; dowel action; bond; aggregate interlock] Issue 3 230-241 Sagaseta, Juan: The influence of aggregate fracture on the shear strength of reinforced concrete beams: an experimental and analytical research project [shear strength; aggregate interlock; high-performance concrete; strut-and-tie method; nonlinear finite element analysis Issue 4 401-414 Seo, Tae-Seok; Kim, Jung-Chul: Behaviour of concrete in a stress continuity region after cracking under restrained drying shrinkage [shrinkage; uniaxial restrained specimen; stress continuity region; bond analysis; effective tensile Young's modu-Issue 2 131-137 lus Silva, Ricardo; Faria, Duarte M.

Viúla; Ramos, A. Pinho; Inácio,

considering how anchorage

Micael: A physical approach for

head size influences the punching capacity of slabs strengthened with vertical steel bolts [punching; physical models; concrete crushing; anchorage; vertical steel bolts; strengthening; flat slabsl Issue 4 389-400 Xiao, Jianzhuang; Fan, Yuhui; Tawana, M.M.: Residual compressive and flexural strength of a recycled aggregate concrete following elevated temperatures [recycled aggregate concrete (RAC); recycled coarse aggregates (RCAs); residual compressive strength; residual flexural strength; elevated temperature Issue 2 168-175 Yamanobe, Shinichi; Saito, Kimio; Ichinomiya, Toshimichi; Kanamitsu, Yoshihisa: Bilateral loading experiment on and analysis of concrete piers using mortarjointed ultra-high-strength fibre-reinforced concrete precast formwork [damage-free bridge pier; ultra-high-strength fibre-reinforced concrete; precast formworkl Issue 3 278-290 Zanuy, Carlos; Curbach, Manfred; Lindorf, Alexander: Finite element study of bond strength

between concrete and reinforcement under uneven confinement condition [bond; confinement: finite element analysis: pull-out test; transverse tension] Issue 3 260-270

■ Archive Your Journals as Books



■ Order book covers to archive and protect your Ernst & Sohn periodicals for long-term use. Convert 4, 6 or 12 individual issues into a **compact reference** volume of standardised A4 size.

Our book covers are made of high-quality cloth binding with embossed lettering. You can also differentiate journals by the colour of the cover.

We deliver the book covers; you have them bound at a local book binder of your choice.

Reply by Fax to: +49 (0)30 47031 240
Order by phone: +49 (0)800 1800 536

Please send us book covers for the following journals:

☐ for 2013 volumes only ☐ subscrip	(delivery approx. in April)			
Title	Volume 2013 - quantity			
Bauphysik	609413			
Bautechnik	609113			
Beton- und Stahlbetonbau	609313			
Geomechanics and Tunnelling	647813			
geotechnik	653413			
Mauerwerk	611613			
Mining Report	629913			
Stahlbau	609213			
Steel Construction	648913			
Structural Concrete	608413			
		x 29,00 €		
Total				
Adress: privat business	Customer ID.			
Company	VAT-No.			
Contact	Phone			
Street / No.	Fax			
Zip Code / City	email			
Customer guarantee: This order may be revoked within two weeks by	giving written notice to: Verlag Ernst & Sohn, Wiley	-VCH, Boschstr. 12, D-69469 Weinheim.		
×				



Date / Signature