

Approval for this bulletin

Subject to priorities defined by the Technical Council and the Presidium, the results of the *fib*'s work in commissions and task groups are published in a continuously numbered series of technical publications called *bulletins*. The following categories are used:

Category:

Technical report
State-of-the-art report
Manual / Guide to good practice / Recommendation
Model code

Approval by:

Task group and chairpersons of the commission
Commission
Technical Council
General Assembly

Any publication not having met the above requirements will be clearly identified as a preliminary draft.

fib bulletin 117 was approved as a state-of-the-art report by the *fib* Commission 2 in 2024.

The *fib* Working Group 2.4.1 “Modelling of Fibre Reinforced Concrete Structures” includes the following members:

Convener: Joaquim A. O. Barros (Universidade do Minho, Portugal)

Deputy Convener: Beatriz Sanz (Universidad Politécnica de Madrid, Spain)

Members: Federico Accornero (China), Antonio Caggiano (University of Genova, Italy & University of Buenos Aires, Argentina), Alberto Carpinteri (Politecnico di Torino, Italy), David Cendon (Universidad Politécnica de Madrid, Spain), Jan Cervenka (Cervenka Consulting Ltd, Czech Republic), Stamatina Chasioti (Yorku University, Canada), Yin Chi (Wuhan University, China), Massimiliano Cremonesi (Politecnico di Milano, Italy), Vitor Cunha (University of Minho, Portugal), Daniel Dias-da-Costa (The Univ. of Sydney / Univ. of Coimbra, Portugal), Alessandro Fantilli (Politecnico di Torino, Italy), Liberato Ferrara (Politecnico di Milano, Italy), Erez GAL (Ben-Gurion University of the Negev, Israel), Ventura Gouveia (Polytechnic Institute of Viseu, Portugal), Peter Juhasz (JKP Static - Budapest, Hungary), Petr Kabele (Czech Technical University in Prague, Czech Republic), Luis Matos (University of Minho, Portugal), Gunther Meschke (Ruhr University Bochum, Germany), Gerrit Neu (Ruhr University Bochum, Germany), Nilüfer Özyurt Zihnioglu (Boğaziçi University, Turkey), Jaime Planas (Technical University of Madrid, Spain), Elisa Poveda Bautista (University of Castilla-La Mancha, Spain), Pierre Rossi (Gustave Eiffel University, France, France), Erik Schlangen (Delft University of Technology, Netherlands), Ab van den Bos (NLYse, Netherlands), Frank Vecchio (University of Toronto, Canada), and Rena C. Yu (University of Castilla-La Mancha, Spain).

Cover images: Figure 6 (top), Figure 8(a) and Figure A9(a-right) in Barros J, Sanz B, Kabele P, et al. “Blind competition on the numerical simulation of steel-fiber-reinforced concrete beams failing in shear”. *Structural Concrete*. 2021; 22: 939–967. <https://doi.org/10.1002/suco.202000345>.

© Fédération internationale du béton (*fib*) 2025.

Although the International Federation for Structural Concrete / Fédération internationale du béton (*fib*) does its best to ensure that all the information presented in this publication is accurate, no liability or responsibility of any kind, including liability for negligence, is accepted in this respect by the organisation, its members, employees or agents.

All rights reserved. No part of this publication may be reproduced, modified, translated, stored in a retrieval system or transmitted in any form or by any means – electronically, mechanically, through photocopying, recording or otherwise – without prior written permission from the *fib*.

ISSN 1562-3610

ISBN (Print): 978-2-88394-195-3

ISBN (PDF): 978-2-88394-196-0

Language check: Gordon Clark

Layout by Marie Reymond (*fib*).

Printed by P+K Solutions GmbH & Co. KG

Acknowledgements

This state-of-the-art report was drafted by Working Group 2.4.1 “Modelling of Fibre Reinforced Concrete Structures” within the *fib* Commission 2.

Authors:

Joaquim A. O. Barros (Editor/Author)

ISISE, University of Minho, Portugal

Antonio Caggiano

University of Genova, Italy & University of Buenos Aires, Argentina

Jan Cervenka

Cervenka Consulting, Czech Republic

Daniel Dias-da-Costa

University of Sydney, Australia

Peter Karoly Juhasz

JKP Static – Budapest, Hungary

Günther Meschke

Ruhr-Universität Bochum, Germany

Nilufer Ozyurt

Bogazici University, Turkey

Elisa Poveda

Universidad de Castilla-La Mancha, Spain

Gonzalo Ruiz

Universidad de Castilla-La Mancha, Spain

Ab van den Bos

NLyseConsultants, Netherlands

Rena C. Yu

University of Castilla-La Mancha, Spain

David Cendón

Universidad Politécnica de Madrid, Spain

Vítor Cunha

University of Minho, Portugal

Erez Gal

Ben Gurion University, Israel

Petr Kabele

Czech Technical University in Prague, Czech Republic

Gerrit Neu

Ruhr-Universität Bochum, Germany

Jaime Planas

Universidad Politécnica de Madrid, Spain

Pierre Rossi

Gustave Eiffel University, France

Beatriz Sanz

Universidad Politécnica de Madrid, Spain

António Ventura-Gouveia

ISISE, Polytechnic Institute of Viseu, Portugal

Contact details of Task Group members can be found in the members only section of the *fib* website, www.fib-international.org.

DOI by chapter

Chapters	Authors	DOI
1	Barros (main author), Kabele, Meschke, Sanz, Yu	https://doi.org/10.35789/fib.BULL.0117.Ch01
2	Barros, Caggiano, Cunha, Gal, Kabele (main author), Meschke, Neu, Ozyurt, Planas, Poveda, Rossi, Sanz, Yu	https://doi.org/10.35789/fib.BULL.0117.Ch02
3	Barros (main author), Cervenka, Dias-Da-Costa, Meschke, Neu, Planas, Ventura-Gouveia	https://doi.org/10.35789/fib.BULL.0117.Ch03
4	Barros, Caggiano, Cendón, Poveda, Yu (main author)	https://doi.org/10.35789/fib.BULL.0117.Ch04
5	Barros (main author), Cunha, Kabele, Ozyurt, Ruiz, Sanz, Ventura-Gouveia	https://doi.org/10.35789/fib.BULL.0117.Ch05
6	Barros, Juhasz, Meschke, Neu, Sanz, van den Bos	https://doi.org/10.35789/fib.BULL.0117.Ch06