



fédération internationale du béton (*fib*)
International federation for structural concrete
Case Postale 88, 1015 Lausanne, Switzerland
Phone +41 21 693 2747 • Fax +41 21 693 6245
fib@epfl.ch • www.fib-international.org

For immediate release

Press contact: Laura Thommen-Vidale, Editor
Email: laura.thommen-vidale@epfl.ch
Tel.: +41 21 693 2747
Fax: +41 21 693 6245
Press area: www.fib-international.org/press

Lausanne, 2 September 2008
ref. PR08008

***fib* Bulletin 45: Practitioners' guide to finite element modelling of reinforced concrete structures**

The latest *fib* Bulletin, number 45, "Practitioners' guide to finite element modelling of reinforced concrete structures" is now available for purchase from the *fib* secretariat.

Non-linear computer analysis methods have seen remarkable advancement in the last half-century. The state-of-the-art in non-linear finite element analysis of reinforced concrete has progressed to the point where such procedures are close to being practical, every-day tools for design office engineers. Non-linear computer analysis procedures can be used to provide reliable assessments of the strength and integrity of damaged or deteriorated structures, structures built to previous codes, and of standards or practices deemed to be deficient today. They can serve as valuable tools in evaluating the expected behaviour from retrofitted structures, or in investigating and rationally selecting amongst various repair alternatives.

fib Bulletin 45 provides an overview of current concepts and techniques relating to computer-based finite element modelling of structural concrete. It summarises the basic knowledge required for use of nonlinear analysis methods as applied to practical design, construction and maintenance of concrete structures, and attempts to provide a diverse and balanced portrayal of the current technical knowledge, recognising that there are often competing and conflicting viewpoints.

This report does not give advice on picking one model over another, but rather provides guidance to designers on how to use existing and future models as tools in design practice, in benchmarking of their models against established and reliable test data and in selecting an appropriate safety factor as well as recognising various pitfalls.

fib Bulletin 45 is intended for practicing engineers, and therefore focuses more on practical application and less on the subtleties of constitutive modelling.

A review copy of Bulletin 45 can be provided on request.

Pages: 344

Price: CHF 180 (non-member price), including surface mail

ISBN 978-2-88394-085-7

To order this Bulletin, use the order form at www.fib-international.org/publications/order/.

###

Note: On request, the text of this press release can be provided in French or German