

Structural Engineering International



Information on submitting papers:

<http://www.iabse.org>

Publisher

IABSE
ETH-Hönggerberg
CH-8093 Zurich, Switzerland
Tel: Int +41-1-633 2647
Fax: Int +41-1-633 1241
e-mail: secretariat@iabse.org
web: <http://www.iabse.org>

Publications Committee

S. F. Bailey, Chairman.
M. G. Bruschi, M. Faber, T. Keller,
S. Nakamura, B. Snijder, J.A. Wium,
A. Golay.

Publications Manager

Ms Carolyn Gorczyca

Correspondents

China: D. Xu. *Denmark:* N. P. Høj.
Egypt: F. Saad. *Finland:*
M.-K. Söderqvist. *France:* B. Godart.
Germany: U. Kuhlmann. *India:* V. Kumar.
Italy: G. Bignotti, L. Ceriolo.
Japan: J. Kanda. *Korea:* H.M. Koh.
Norway: L. Toverud. *Poland:* W. Radomski.
Russia: S.V. Mozalev. *Sweden:*
H. Sundquist. *Thailand:* E. Limsuwan.
UK: D. K. Doran. *USA:* D. Frangopol.

Advertising Inquiries

Ms Sissel Niggeler, IABSE

Printer

Multicolor Print AG, CH-6341 Baar

Published

Quarterly: 1 Feb., 1 May, 1 Aug., 1 Nov.

Price

Included in IABSE Membership.
Subscription: 160 Swiss Francs (CHF)
plus mailing costs.
Available through subscription agencies.

ISSN 1016-8664, E-ISSN 1683-0350

Copyright © IABSE. All rights reserved.
Opinions and positions expressed in signed
articles are those of the authors and are not
necessarily those of *Structural Engineering
International* or IABSE.

Front cover:

Science and Technology Museum
Shanghai, China

Owner: Shanghai Science & Technology
Museum, China

Architect and Engineer: Shanghai
Inst. of Arch. Design and Research, China

Contractor: Shanghai Number 4
Construction Company, China

Service date: 2001

See article on page 7

Editorial

M. Ito, Japan

5

Recent Structures and Bridges in China

Recent Structures and Bridges in China: an Introduction

6

H. Xiang, China

Science and Technology Museum, Shanghai

7

L. Yang, Y. Li, R. Qian, China

Bank of China Headquarters, Beijing

9

T.-F. Jing, USA

International Conference and Exhibition Center, DongGuan

12

J. Ding, S. Chao, China

Swimming Gymnasium, Shanghai

14

X.-F. Wang, Y.-W. Yang, L. Luo, China

Number 2 Tower, Shimao Rivera Garden, Shanghai

16

H. Zhang, S. Gu, B. He, X. Lu, W. Lu, China

International Convention and Exhibition Center, Ningbo

18

F. Zhong, China

Guideway Structure, Maglev Demonstration Line, Shanghai

21

X. Wu, J. Huang, China

Lupu Arch Bridge, Shanghai

24

Y. Lin, Z. Zhang, B. Ma, L. Zhou, China

Yiling Multispan Cable-Stayed Bridge over the Yangtze River

27

C. Shao, China

Construction of the Jiangyin Yangtze Suspension Bridge

30

S. Zhou, China

Wuhu Double Deck Cable-Stayed Bridge

32

Q.-H. Fang, China

Second Nanjing Cable-Stayed Bridge

34

L. Liu, X. Zeng, China

Reports

Automatic Post-Tensioning in Prestressed Concrete Structures

37

Q. Guo, Z. Li, China; L. Duan, USA

Conceptual Design of the Leonard P. Zakim Bunker Hill Bridge,

42

Boston, MA, USA, *C. Menn, Switzerland; V. Chandra, K. Donington, USA*

Lessons from Structural Failure

Failure of Hollow Ribbed Slabs in Buildings – Suggested

46

Rehabilitation Method, *A. Pisanty, B. Mairanz, Israel*

Science and Technology

Mechanical Properties and Remaining Strength of Corroded

50

Bridge Wires, *S.I. Nakamura, K. Suzamura, T. Tarui, Japan*

Method and Analysis of Vertically Tensioned Prestressed

55

Concrete Beams, *Z. Zhou, J. Zhang, M. Xu, Z. Li, T. Zhang, China*

Panorama

IABSE Symposium, Shanghai, China, September 22–24, 2004

60

Calendar of Events

61

Bridges for the Congo, *T. Rüttimann*

62

Application for IABSE Membership

64