

Zeitschrift: IABSE bulletin = Bulletin AIPC = IVBH Bulletin
Band: 12 (1988)
Heft: B-44: IABSE bulletin

Vereinsnachrichten: Monitoring of large structures and assessment of their safety: IABSE colloquium, Bergamo, October 14-16, 1987

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 22.08.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

1. Monitoring of Large Structures and Assessment of their Safety IABSE Colloquium, Bergamo, October 14 – 16, 1987

Introduction

The Colloquium, organized by the Italian National Group of IABSE in cooperation with ISMES was related to the Venice 1983 IABSE Symposium on «Strengthening of Building Structures: Diagnosis and Therapy», to the Washington 1982 IABSE Symposium on «Maintenance, Repair and Rehabilitation of Bridges» and to some aspects of the IABSE Symposium on «Safety and Quality Assurance of Civil Engineering Structures», held in Tokyo in September 1986.

The purpose of the Colloquium was to let specialists involved in monitoring and testing of large structures have an opportunity to meet and exchange ripe experiences aimed to appraise structural serviceability and safety.

Participation was restricted to a limited number of invited specialists concerned with engineering fields related to the Colloquium themes. 68 participants from 13 countries attended the Colloquium.

The Scientific Committee for the Colloquium consisted of 13 Members from 6 Countries, chaired by Prof. Guido Oberti, Italy.

Technical Programme

The construction of large structures (bridges, viaducts, concrete dams, tall buildings, tunnels, offshore platforms, etc.) has greatly increased in recent years, due to the development of new design and analysis methods, the aid of mathematic and physical models and the application of new construction methods and improved materials. Moreover, many existing ancient structures (old bridges and dams, churches, monuments, etc.) require accurate investigation of their actual conditions.

The Colloquium focused on recent developments and applications of monitoring and testing methods, equipment and systems to assess service conditions and safety of ancient and modern structures subjected to static and dynamic loading.

The contributions for Session 1 – co-chaired by Dr. Hans Pfohl (Federal Republic of Germany) and Prof. Leo Finzi (Italy) – dealt with Monitoring and Testing of historically important Monuments, Bridges and Marine Structures, but also proposed general remarks about Structural Diagnosis, Structural Identification, Planning of Monitoring Activities and the role of these activities for gaining a better knowledge of the structural behaviour.

The papers for Session 2 – chaired by Prof. Renaud Favre (Switzerland) and Prof. Giorgio Macchi (Italy) involved interesting works on Dams, Bridges, Structural Frames, Power Plant Structures, Offshore Platforms and some advanced measuring techniques.

The presentations for Session 3 – chaired by Dr. Dewayne Misterek (U.S.A.) and Prof. Michele Fanelli (Italy) – approached the theme of «Interpretative Models and Decision Making» from the viewpoint of engineering problems related to Monumental Buildings, Bridges, Offshore Platforms and Underground Railways.

Conclusions

The Colloquium theme was found to be very interesting. With reference to common problems, the selection of invited Authors made possible the exchange of experiences among specialists from different engineering areas, which usually have their own separate conferences and meeting opportunities.

This wide range of exchange of experiences and know-how was the first goal reached by the Colloquium; in fact, it may be considered a good start point for the transfer of technology and new methods from the most advanced areas of structural monitoring to the others.

To propose again in the near future further IABSE meetings about «Monitoring Problems» was therefore recognized as an important need.

The second goal attained by the Colloquium concerned written contributions and discussions were dealing more with a general approach to monitoring criteria and data managing/processing than with technical details of instrumentation and equipment.

The Colloquium format was successful and the time available for both oral presentations and discussions was suitable.

Finally a wish was expressed that IABSE (especially through its Working Commissions) will more and more consider in the future the increasing development of monitoring techniques for monuments and historical buildings. The Bergamo Colloquium has shown a positive trend of applications in this engineering area.

The Colloquium Report was distributed in Bergamo to the attending Participants, and may be obtained at the IABSE Secretariat.

Colloquium Bergamo
October 14 – 16, 1987

Report

IABSE REPORTS, VOLUME 56

410 pages, 310 illustrations

ISBN 3-85748-054-3

28 contribution

Price: SFr. 99.—

IABSE Members: SFr. 66.—

Colloque Bergamo
14 – 16 octobre 1987

Rapport

RAPPORTS AIPC, VOLUME 56

410 pages, 310 illustrations

ISBN 3-85748-054-3

28 contributions

Prix: SFr. 99.—

Membres AIPC: SFr. 66.—

Kolloquium Bergamo
14. – 16. Oktober 1987

Bericht

IVBH REPORTS, VOLUME 56

410 Seiten, 310 Bilder

ISBN 3-85748-054-3

28 Beiträge

Preis: SFr. 99.—

IVBH Mitglieder: SFr. 66.—