11TH INTERNATIONAL STRESS WAVE CONFERENCE 2022

Rotterdam, the Netherlands
September 20-23, 2022

PHOTO CREDIT BY IRIS VAN DEN BROEK

CALL FOR ABSTRACTS

Engineers, researchers, academics and other professionals are invited to submit a one-page abstract drafted in English between 500 and 700 words for review by May 1, 2021.
Click here to submit your Abstract.
More information about the conference can be found on the website www.sw2022.org (which will be updated regularly). The authors of all accepted abstracts will be allowed to submit a paper for inclusion in the conference proceedings and present during the conference, provided they have registered for the event.

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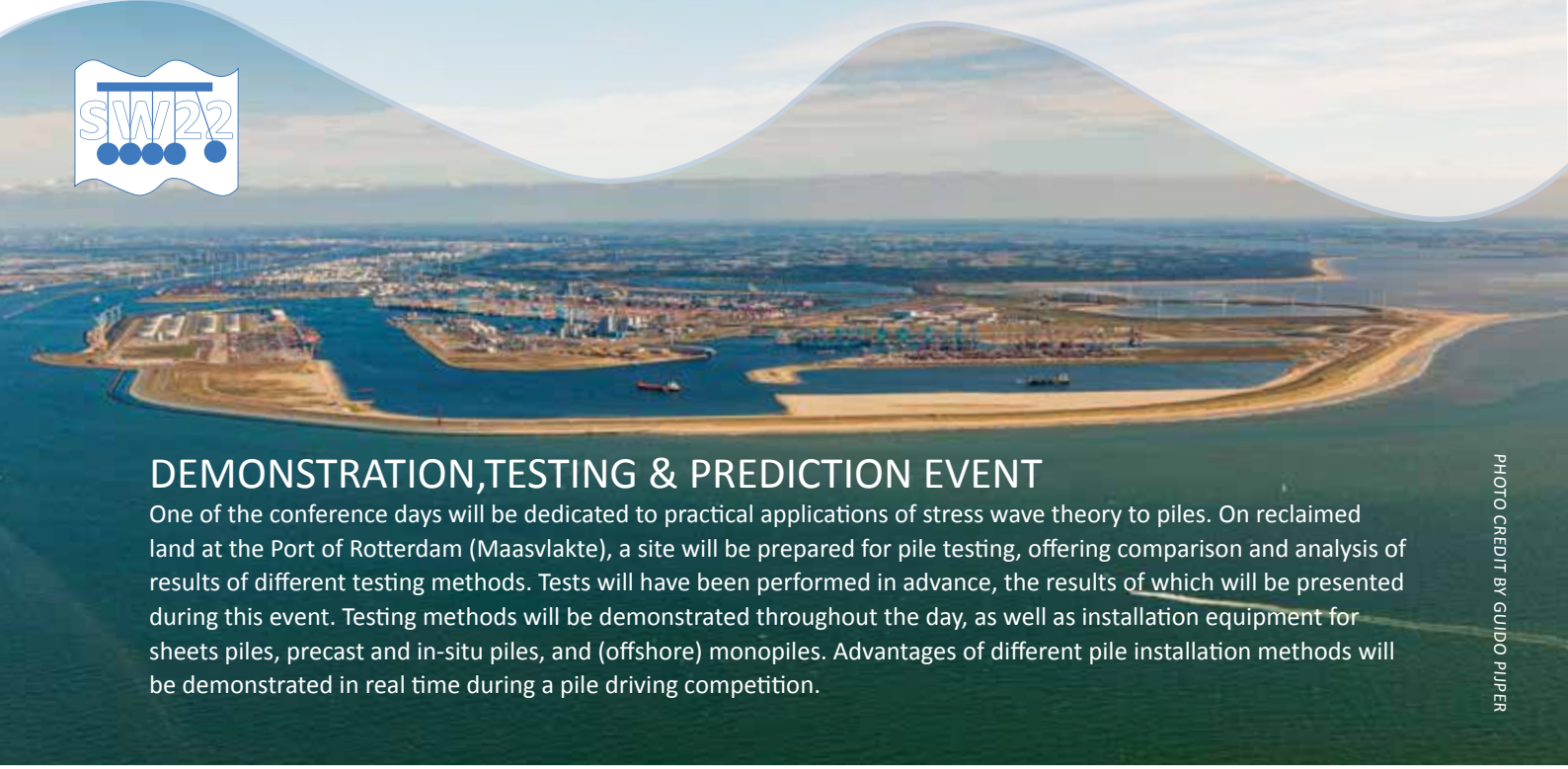
STRESS WAVE CONFERENCE

The 11th International Conference on Stress Wave Theory and Design and Testing Methods for Deep Foundations, (including a Demonstration, Testing and Prediction Event) will be held in Rotterdam, the Netherlands, September 20 – 23, 2022. Prospective authors are invited to submit abstracts for this conference. The conference will cover theoretical and practical aspects of areas like wave mechanics applications to foundations, high strain dynamic testing, low strain integrity testing, rapid load testing, monitoring vibrations due to dynamic effects, axial (compression, tension, bidirectional) and lateral load testing, soil-structureinteraction during foundation testing, monitoring and analysis of impact and vibratory driven (sheet) piles, drivability studies, and other related subjects.



DEMONSTRATION,TESTING & PREDICTION EVENT

One of the conference days will be dedicated to practical applications of stress wave theory to piles. On reclaimed land at the Port of Rotterdam (Maasvlakte), a site will be prepared for pile testing, offering comparison and analysis of results of different testing methods. Tests will have been performed in advance, the results of which will be presented during this event. Testing methods will be demonstrated throughout the day, as well as installation equipment for sheets piles, precast and in-situ piles, and (offshore) monopiles. Advantages of different pile installation methods will be demonstrated in real time during a pile driving competition.

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ABSTRACTS ARE ACCEPTED FOR THE FOLLOWING 8 THEMES

1. Stress Wave mechanics applied to pile engineering, like signal matching, driveability prediction, rapid load test prediction and other stress wave simulation applications.
2. Load Testing (including high strain dynamic testing, rapid load testing, axial compression, tension, and bidirectional load testing, lateral testing) for piles installed in-situ or driven by vibratory or impact driving or other methods.
3. Quality assurance of driven and drilled deep foundations, low strain integrity testing, cross hole sonic logging, thermal profiling, etc.
4. Soil-pile interaction during pile installation and during (dynamic, rapid or static) testing, the effect of installation methods, static resistance to driving vs long-term static soil resistance.
5. Vibrations of ground and adjacent structures: theory, prediction and monitoring.
6. Design codes and standards for testing of deep foundations.
7. Case studies of installed deep foundations: design, execution and testing.
8. Environmental vibrations and noise.

CONFERENCE OBJECTIVES AND THEMES

The main objective of the conference is to create a forum for the exchange of knowledge, ideas and experience regarding the application of stress-wave theory to piles, subsoil and foundation engineering, as well as developments in Design and Testing Methods for these applications. The conference intends to bring together researchers, equipment manufacturers, installation contractors, as well as design and testing engineers.

In order to give all participants the opportunity to present, the conference format will include concurrent sessions, with plenary sessions for invited keynote speakers, and the presentation and discussion of selected papers.

SCIENTIFIC CHALLENGE IN PRACTICE

Scientific approaches to pile design have advanced in recent decades. Unfortunately, in practice, the most fundamental aspect of pile design - estimation of the axial capacity and settlement - still relies heavily upon empirical correlations and based on excessively crude soil-pile interaction models. Pile testing and monitoring increases the reliability of the foundations, making them more efficient and more economical. Furthermore, it reduces the impact on the environment.

To understand the state-of-the-art of foundation engineering and pile testing, the conference shall organize a survey of possible methods for determination of integrity and load capacity of piles. Engineers are invited to participate in this comparative research study.

YOUNG PROFESSIONALS AND BEST PAPER COMPETITION

To encourage young professionals interested in pile dynamics issues, the organizing committee invites all authors under the age of 35 to join a paper competition. The winner of the competition will receive a free entrance ticket to this conference and a stipend of 1,000.- euro. Detailed instructions will be provided upon abstract acceptance. Additionally, there is an opportunity to get a chance to deliver a Bright Spark Lecture, a keynote lecture at this conference.

ORGANISATION AND SUPPORT

This conference is organised by the Royal Netherlands Society of Engineers (KIVI) and supported by the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), the Dutch Foundation Industry and (geotechnical) engineering en research organizations.

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IMPORTANT DATES

CALL FOR ABSTRACTS
February, 2021

DEADLINE ABSTRACT SUBMISSION
May 1, 2021

ABSTRACTS APPROVAL NOTIFICATION
July 1, 2021

DEADLINE PAPER SUBMISSION
December 31, 2021

PAPERS APPROVAL AND REVIEW NOTIFICATION
March 1, 2022

DEADLINE FINAL PAPER SUBMISSION
May 1, 2022

PUBLICATION OF PROCEEDINGS
September 2022

CONFERENCE SEPTEMBER
20-23, 2022