



PhD Course in Engineering Science – Cycle XL

NON-DESTRUCTIVE IN SITU STRENGTH ASSESSMENT OF CONCRETE: AN OVERVIEW ON 249-ISC RILEM TC RECOMMENDATIONS PROPOSAL

RILEM State-of-the-Art Reports

Denys Breysse
Jean-Paul Balayssac Editors

Non-Destructive In Situ Strength Assessment of Concrete

Practical Application of the RILEM TC
249-ISC Recommendations



Springer

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Program

Non-Destructive in Situ Strength Assessment of Concrete: an Overview on 249-IsC Rilem Tc Recommendations Proposal

- **Martedì 17 giugno 2025** ore 16:00 – 18:00

Samuele Biondi: Overview on Italian Structural Code regarding Structural Controlling

Vincenza A. M. Luprano: Evaluation of concrete strength by combined NDT techniques: practice, possibilities and recommendation (*chapter 3 249-IsC Rilem Tc Recommendations Proposal*)

- **Mercoledì 18 giugno 2025** ore 10:00 – 13:00

Samuele Biondi: In-situ strength assessment of concrete: detailed guidelines (*chapter 1 249-IsC Rilem Tc Recommendations Proposal*)

Vincenza A. M. Luprano: How to identify the recommended number of cores? (*chapter 2 249-IsC Rilem Tc Recommendations Proposal*)

Vincenza A. M. Luprano: Identification of test regions and choice of conversion models (*chapter 4 249-IsC Rilem Tc Recommendations Proposal*)

- **Mercoledì 18 giugno 2025** ore 14:00 – 17:00

Samuele Biondi: How investigators can assess concrete strength with on-site non-destructive tests and lessons to draw from a benchmark (*chapter 6 249-IsC Rilem Tc Recommendations Proposal*)

Samuele Biondi: How investigators can answer more complex questions about assessing concrete strength and lessons to draw from a benchmark (*chapter 7 249-IsC Rilem Tc Recommendations Proposal*)

Vincenza A. M. Luprano: Illustration of the proposed methodology based on synthetic data (*chapter 8 249-IsC Rilem Tc Recommendations Proposal*)

Vincenza A. M. Luprano: Illustration of the proposed methodology based on a real case-study (*chapter 9 249-IsC Rilem Tc Recommendations Proposal*)

- **Mercoledì 18 giugno 2025** ore 17:00 – 18:00

Samuele Biondi, Vincenza Luprano, Elena Candigliota, Emilia Vasanelli: An introduction to real case-studies

- **Giovedì 19 giugno 2025** ore 10:00 – 13:00

Samuele Biondi: The Gabriele d'Annunzio University experiences on structural control: Scam Laboratory, Uda TechLab, Trained Lab, Best-Lab Spin-Off

Vincenza A. M. Luprano, Elena Candigliota, Emilia Vasanelli: Real case-studies:

Holistic Assessment for Social Housing Retrofitting: Integrating Seismic, Energy, and Social Aspects in the REHOUSE Project

Evaluation of concrete strength by means of ultrasonic waves: a method for the selection of coring position: the Punta Perotti case