

# Luciano Rosati

University of Naples Federico II

## Thrust Line Analysis of Unreinforced and Reinforced Arches

We specialize the Thrust Network Analysis (TNA), i.e. the methodology for modeling masonry vaults as a discrete network of forces in equilibrium with the applied loads, to the case of reinforced and reinforced arches.

The resulting approach, denominated Thrust Line Analysis, is suitably extended to account for the expansion or contraction of the geometric domain of the thrust line able to include the effects of the limited compressive strength of masonry, as well as the tensile strength and delamination ruptures of the composite-reinforcement.

The influence of each one of these issues on the size of the admissible domain, evaluated iteratively as a function of the internal forces, are numerically investigated and discussed.

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12 a.m.

Aula Pacinotti

Scuola di Ingegneria, Università di Pisa – Largo Lazzarino, 56122 Pisa

For any information: [riccardo.barsotti@unipi.it](mailto:riccardo.barsotti@unipi.it), [bennati.stefano@gmail.com](mailto:bennati.stefano@gmail.com)