

## Design and Construction of Almonte Bridge

Dienstag, 2. Mai 2017  
17:00 Uhr  
Auditorium HIL E 1 (Lehrgebäude Bauwesen)  
ETH Zürich, Hönggerberg, 8093 Zürich

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Almonte Bridge

*The High Speed Railway link Madrid - Extremadura crosses over River Almonte with a great arch viaduct of high-performance concrete. With a 384 m long main span, this arch bridge sets a new world record as the longest span on a single concrete arch bridge used for high speed trains. Almonte's span is considerable even compared with non-railway concrete arch bridges. The arch has been erected by cantilever method construction with the aid of temporary cable-stays from two temporary steel towers. The deck was constructed using an overhead movable scaffolding system.*

*Exceptional techniques and structural analysis have been developed to reach its design and construction. These studies include the selection of the antifunicular arch axis taking into account construction process and train loads, geometric and material nonlinear analysis, dynamic analysis and aerolastic behaviour. It has also required important site control activities and special operations during its erection, as its monitoring system or its geometrical control.*

*Anschliessend an den Vortrag ist ein gemeinsames Nachtessen mit dem Referenten im Restaurant Die Waid, Waidbadstrasse 45, 8037 Zürich vorgesehen.*