Design and fabrication of a shell built with the CASTonCAST system

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Abstract
In IASS18, an arch composed of stackable components built using the CASTonCAST system was presented. The successful results obtained motivated the continuation of this investigation in the building of a larger prototype. The present paper introduces the design and fabrication of the first real-scale shell structure produced with the CASTonCAST system. The shell has a span of 6.5 meters and it is composed of 36 components. This paper demonstrates that the mentioned system is ready to be used for the production of precast shell structures. In addition, it describes new features of the fabrication system.

Keywords: Concrete shell structures, precast techniques, Graphic Statics.