

# **The dome of Santa Maria del Fiore in Florence: a virtual model.**

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**Abstract** The research deals with one of the most famous masterpieces of Italian Renaissance, the Brunelleschi's Dome, covering the cathedral of Santa Maria del Fiore in Florence. The main target of the study is to show its composition by creating a virtual model. The three-dimensional modelling aims at offering the possibility of a simple and immediate synthesis, in order to explain the complexity of the dome and its geometric genesis also to non-experts, with only basic geometric skills. Moreover the model is essential to make real the object even in its hidden components, not directly detectable to an outside glance, providing a less superficial view of relationships between geometry and structure inside the building.

**Keywords** Domes, Geometry, Florence