MASONRY STRUCTURES EXPOSED TO FIRE AND HIGH TEMPERATURES

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The short course aims at providing a general picture of the current scientific knowledge about the problem of masonry members and structures in fire. In the cross-disciplinary features of such topic, our point of view is that of Structural Engineering, and in particular the perspective of structural reliability during and post fire. We will take into consideration the available approaches for design and assessment, at the material as well as structural scale. Particular attention will be paid to the fire behaviour of historic buildings and cultural assets, deserving the highest levels of fire performance due to the need for preservation.

CONTENTS:

1. *General introduction to structures and fire*
2. *Fire vulnerability of masonry structures*
3. *Fire tests*
4. *Fire protection of cultural heritage*
5. *Properties of materials exposed to high temperatures*
6. *Structural behaviour of masonry members in fire*