

P. Czumaj, S. Dudziak and Z. Kacprzyk, *Analysis of a reinforced concrete dome*, RSP 2020, IOP Conference Series: Materials Science and Engineering, Volume 1015, XXIX R-P-S Seminar 2020 November 2020, Wroclaw, Poland, DOI: 10.1088/1757-899x/1015/1/012006 [on-line](#)

Abstract

FEM models of axi-symmetrical reinforced concrete dome with two rings have been analysed. Different complexity level of computational models (2D and 3D), geometry simplifications and FEM codes (Abaqus, FEAS, ARSAP) have been compared. Assessment of building structure deflections has been performed with several approaches, which gave opportunity to confront them and estimate mistakes of most commonly used models.