Response of Concrete Panels Subjected to Compression-Tension State of Stresses

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Abstract : For reinforced concrete panels the risk of failure due to compression -tension state of stresses, results from pure shear or torsion, can be a major problem. The present calculation methods for such stresses from multiple influences are without taking into account the softening of cracked concrete remains conservative. The non-linear finite element method has become an important and increasingly used tool for the analysis and assessment of the structures by including cracking softening and tension-stiffening. The aim of this paper is to test a computer program refined recently and to simulate the compression response of cracked concrete element and to compare with the available experimental results.