ABSTRACT

At check reticulated reinforced concrete structures in the ultimate limit state one always have the columns requested by a compression with biaxial bending , be due bending moments transmitted bay beams or slabs or due constructions imperfections or actions normal to the axis of the compressed piece acting between its points of attachment. This work is to compare the results that are obtained by two methods of calculation, which are: a) Numerical integration in each main direction of inertia with the use of secant stiffness obtained from bending-curvature diagram, it is, the second order efforts are calculated in each direction as if there was not request bending in the orthogonal direction and the end check the safety at ultimate limit state of the column by considering the biaxial bending; b) Numerical integration in each main direction of inertia with curvatures obtained point to point of moment-curvature diagrams, that consider the biaxial bending, to calculate the second order effects. Were processed 215.740 columns whose analysis leads to the conclusion that we can use the procedure mentioned in tem a) above, safely and without prejudice to the economy.