

## عنوان مقاله:

ANALYTICAL MODELING OF CAP BEAM-COLUMN JOINTS IN ORDINARY RC MULTI-COLUMN BRIDGE BENTS  
IN IRAN

## محل انتشار:

هشتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1398)

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## خلاصه مقاله:

This paper presents nonlinear modeling of exterior and interior cap beam-column joints with inadequate reinforcement in existing multicolumn bridge bents. Cap beam-column joints of multi-column bents are vulnerable to premature failures when subjected to cyclic loading. In the proposed model shear and bond-slip behavior are simulated by a single nonlinear rotational spring in OpenSees platform. The effect of bond slip is taken into account thorough a reduced envelope for the cap beam-column joint moment- rotation relationship. The capacity of interior joints is considered to be greater than the capacity of exterior joints because previous tests indicated that external joints are damaged more extensively than internal joints. The joint model is validated using two experimental specimens representing multi-column bridge bents in Iran. Finally, according to the proposed backbone curve, three limit states are defined for typical non-ductile cap beam-column joints

## کلمات کلیدی:

Cap beam-column joints, Bond slip, Shear deformation, Rotational spring, Proposed backbone curve

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1022553>

