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Seismic Risk Assessment in the Middle East and Caucasus

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Abstract: The present paper summarizes the activities completed within the seismic risk module of the regional program of GEM (Global Earthquake Model), EMME (Earthquake Model of Middle East). The seismic risk module encompasses the assessment of seismic risk in terms of structural damages, casualties and economic losses and also the evaluation of the effects of relevant mitigation measures. As the major component of EMME, seismic risk module includes regional loss estimation calculations based on intensity based vulnerability approach. Loss estimation results are obtained in terms of building damage and casualty distributions. As the result of the activities performed within risk module of EMME a homogenized building classification with appropriate vulnerability parameters are obtained. As the regional program of GEM, EMME also aims to adopt the GEM guidelines and criteria defined in connection with risk assessment methodologies.