Calculating Stress Intensity Factor of Cracked Axis by Using a Meshless Method

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Abstract : Numeral study on the crack and discontinuity using element-free methods has been widely spread in recent years. In this study, for stress intensity factor calculation of the cracked axis under torsional loading has been used from a new element-free method as MLPG method. Region range is discretized by some dispersed nodal points. From method of moving least square (MLS) utilized to create the functions using these nodal points. Then, results of meshless method and finite element method (FEM) were compared. The results is shown which the element-free method was of good accuracy.