

## Direction of initial crack growth for the class of cuts with cusps on the plane

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### Abstract

The direction of initial crack growth which can be calculated for the class of cuts with cusps on the plane is experimentally studied. The exterior of this cut is obtained with the rational function map of the unit disk exterior. The following brittle fracture hypothesis is used wherein the direction of the initial growth of the crack at the cusp is the direction of the maximal intensity factor of the normal tear tension  $\sigma\beta$ .

[http://dx.doi.org/10.1016/S0093-6413\(00\)00079-3](http://dx.doi.org/10.1016/S0093-6413(00)00079-3)

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