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Hydraulic fracturing modeling using the enriched numerical manifold method

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## **Highlights**

- The numerical manifold method (NMM) is further developed to solve 2D rock hydraulic fracturing problems.
- A “cubic law” is incorporated into the NMM for modeling fluid flow through fractures.
- The asymptotic fracture-tip functions are used to enrich the global displacement function space of NMM.
- The present results agree well with the existing experimental and analytical results.
- The advantages of the NMM in discretization and accuracy are demonstrated.

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