

## ***Interactive comment on “A new mixed-mode fracture criterion for large scale lattice models” by T. Sachau and D. Koehn***

**Anonymous Referee #2**

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The authors present an interesting and innovative use of a lattice to represent a particular fracture problem. The strain mixed-mode strain energy-based approach is novel and appears to give much better results than the more traditional tensile fracture-based approaches. The topic is nicely developed, and the paper is easy to follow. As such it should gain wide interest. There are some places where the sentence structure is a bit awkward, so a final review by an English-language editor might be appropriate.

My one minor suggestion is that the authors may want to consider an alternative to their use of the term "spring" for a lattice element. In traditional solid mechanic modeling, the term spring is generally applied to elements that can resist only axial forces. The authors present an element that resists both axial and shear forces. Perhaps "bar" might be better, although that might imply bending and torsion resistance as well.

C2015

Overall very nice work.

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Interactive comment on Geosci. Model Dev. Discuss., 6, 4327, 2013.

C2016