Interactive comment on "Accurate stream extraction from large, radar-based elevation models" *by* M. Metz et al.

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This is a very interesting text and present new and valuable method of extracting stream networks from massive, remote-acquired data sets. Authors compare results achieved with new method implemented to GRASS GIS r.watershed a coupling of A* Search algorithm and MFD with most widespread method like depression filling. The comparison is made on very large data set over 1200 high accuracy GPS points which is more than enough for such study. The comparison method based on distance between modeled and measured points is also very usefull and credible. Also the impact of RST resampling on final result is analysed.

There are however some possible changes and improvements wchich can made this

work better:

1) There is too much emphasis on computational time and algorithmic problems than on stream tracing methods. The main goal presented in title is Accuracy of stream tracing, but in the introduction the main goals are computational improvements. In my opinions that shall be reduced and replaced with detail description on how coupling of A* Search and MFD impacts on stream route modeling, which is the most valuable achievement of authors. The detail description of computational problems shall be a part of different paper of computational or geoscience-computational profile.

2) Authors introduce three alternative methods to A* Search: depression filling, breaching and impact reducing approach, but in discussion sections there are only two. Authors shall explain why breaching is excluded from comparison.

3) In discussion and conclusion sections there shall be more about which features of A* Search and MFD modeling gives better results than others. It is very important because without this there is only a case study proof which may or may not reproduced on different areas. These features shall be pointed out and discussed in discussion section.

4) There shall be also some reference to existing and popular open source software like Tarboton's TAUDEM or SAGA, with explanation why methods implemented there give not enough accuracy.