Observational Requirements to Improve Ice Sheet Models – the SeaRISE perspective

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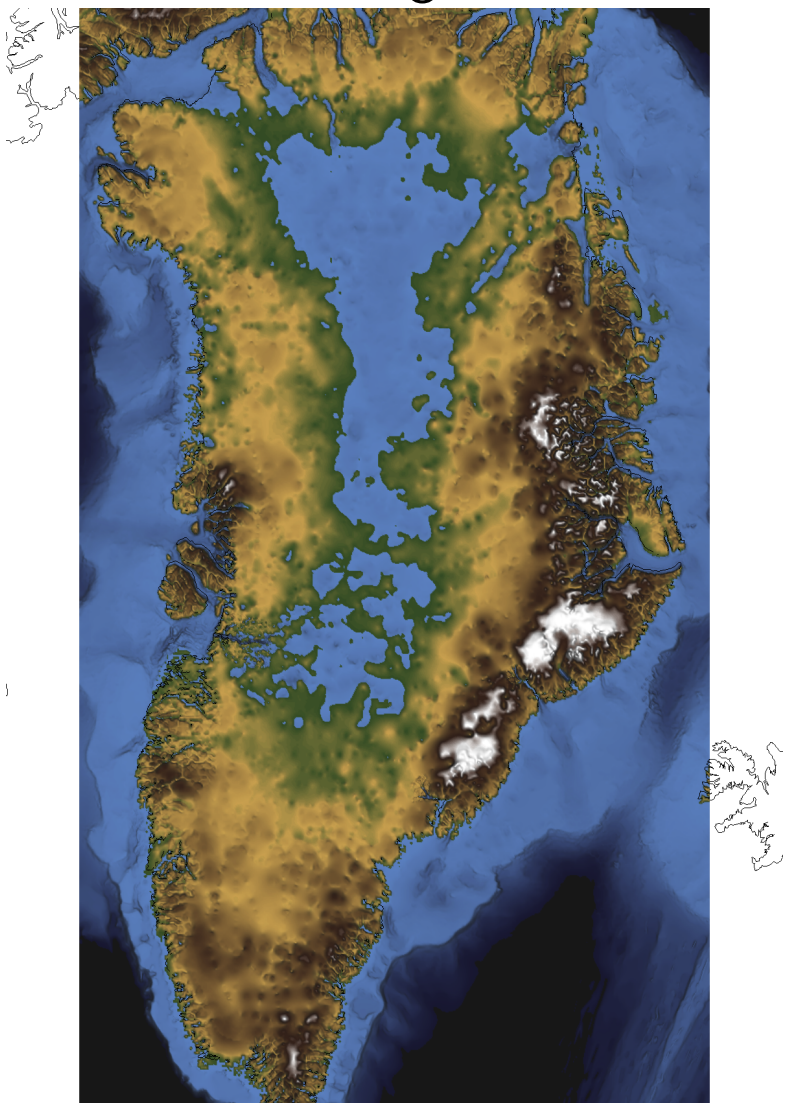
Dinner Meeting, AGU 2010

The Greenland prespective

5km grid interpolated onto 2km grid

Bamber et al. (2001)

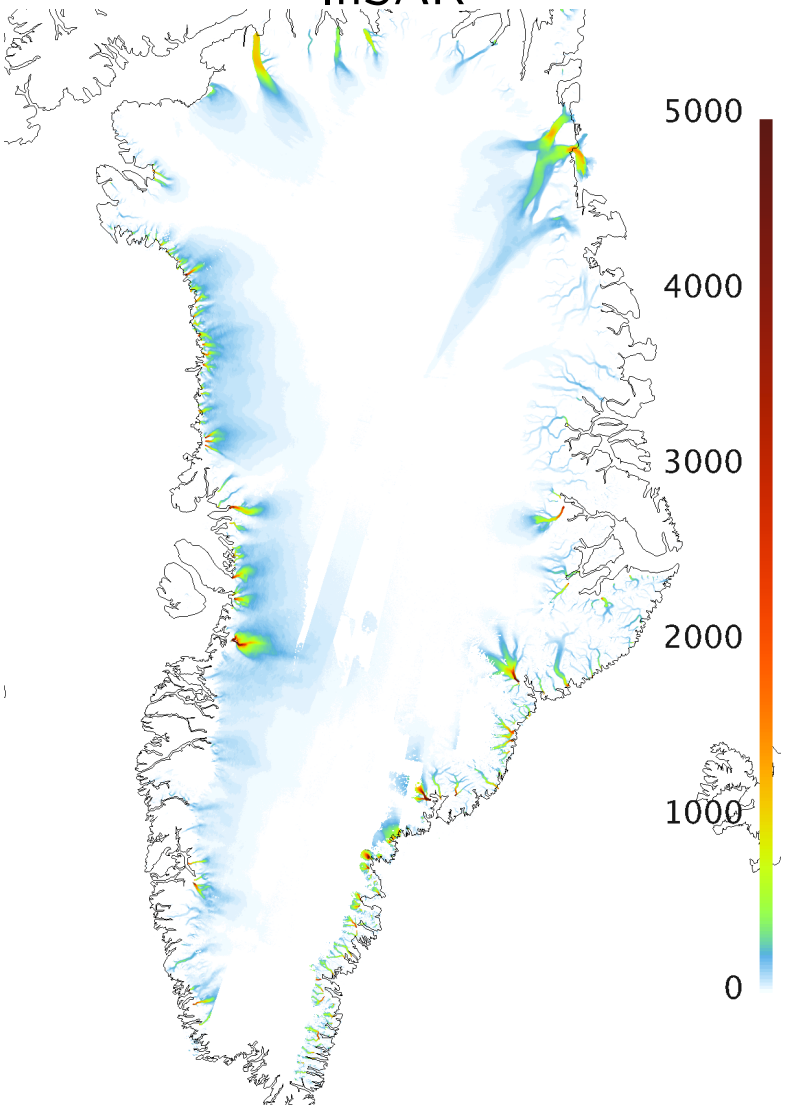
2km grid



Bamber et al. (2001) & CReSIS

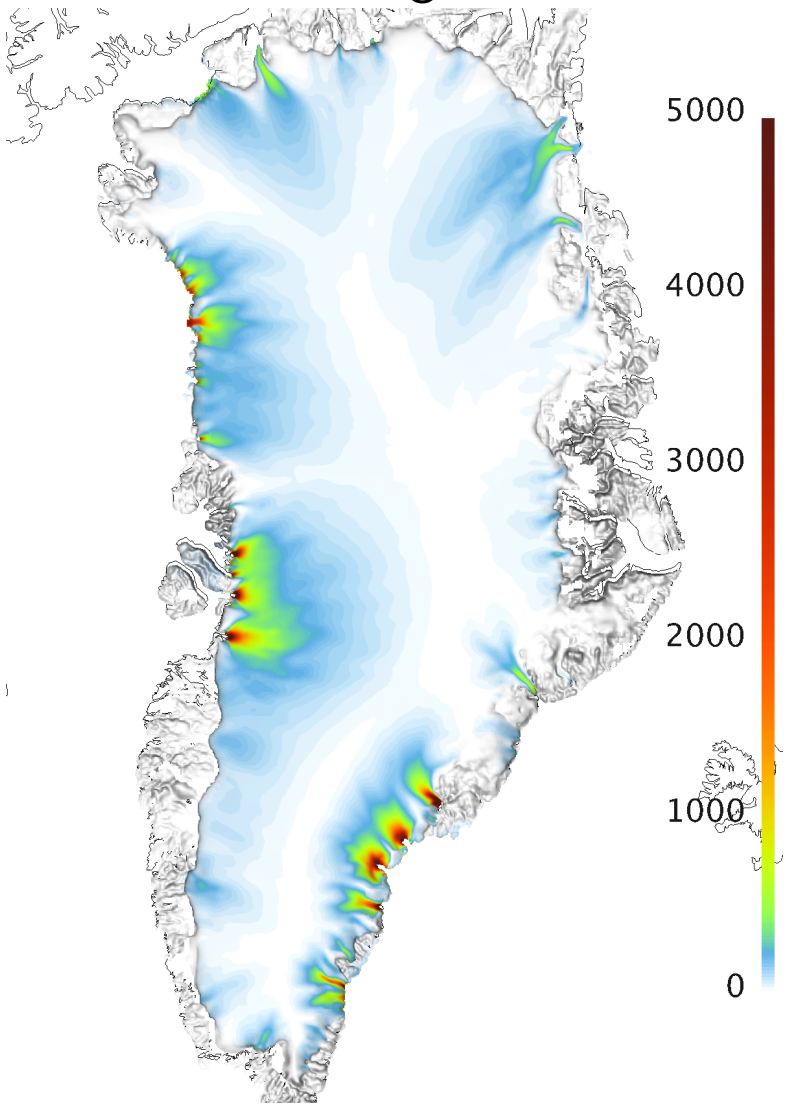
The Greenland prespective

InSAR



Joughin et al. (2010)

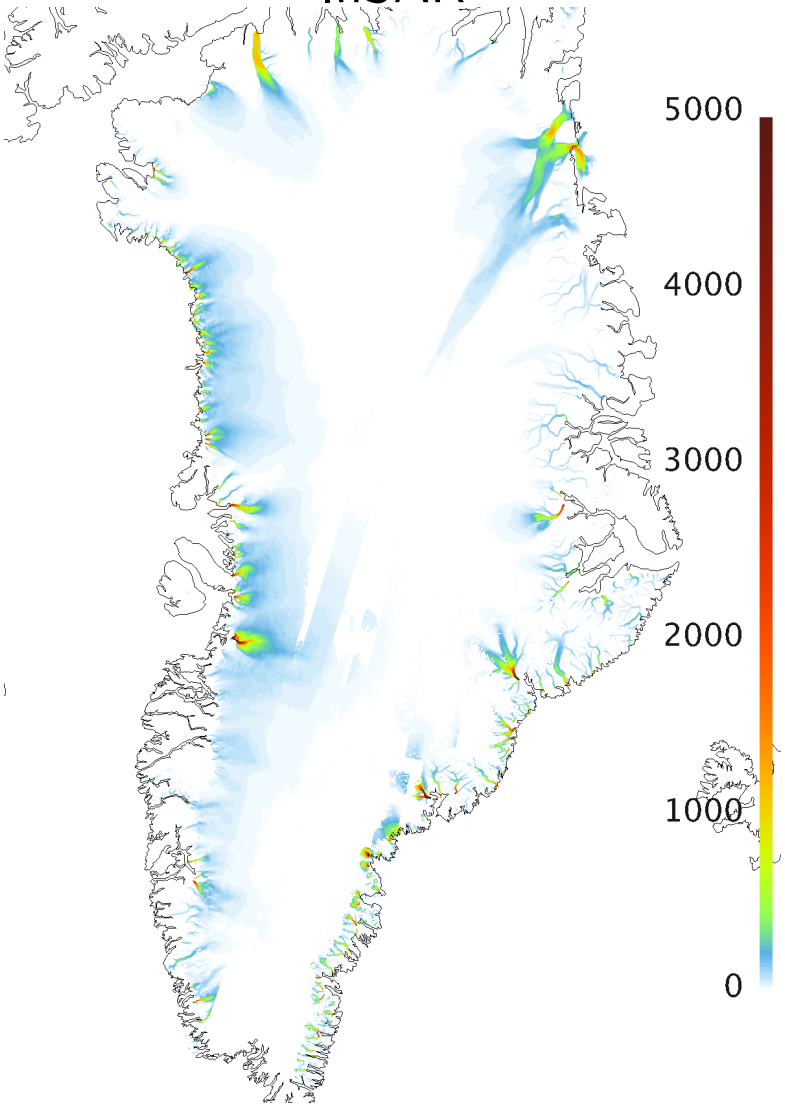
2km grid



Bamber et al. (2001)

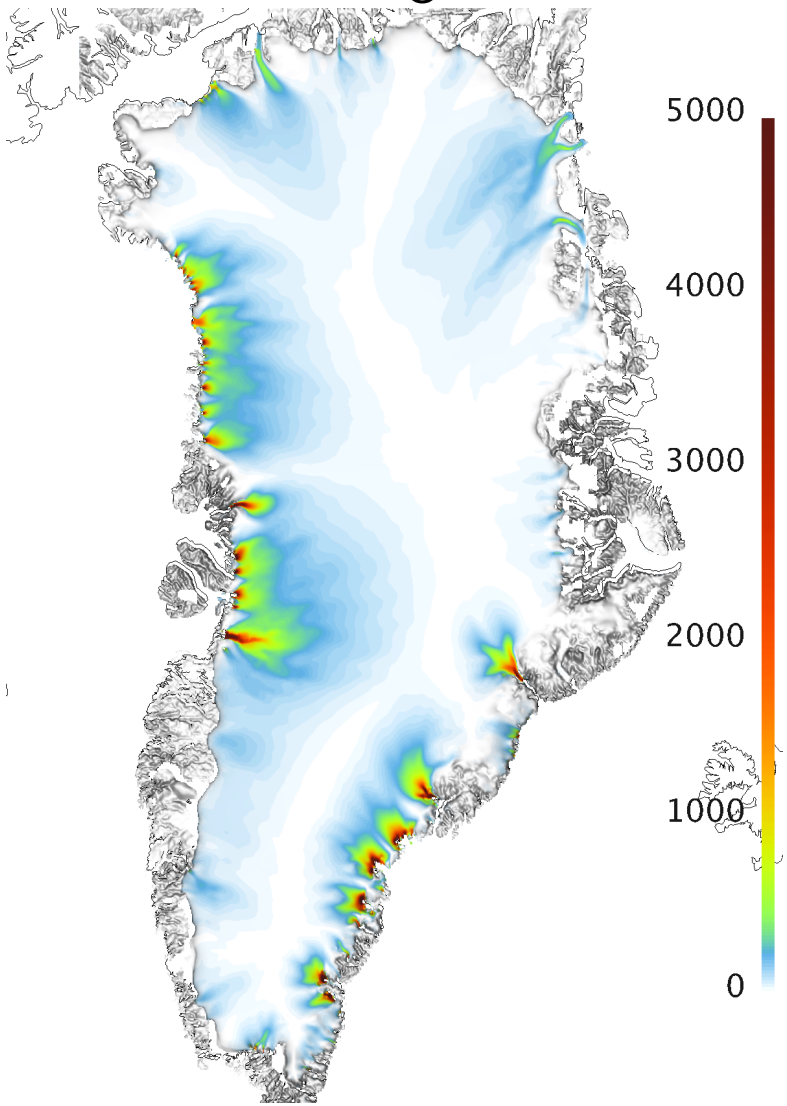
The Greenland prespective

InSAR



Joughin et al. (2010)

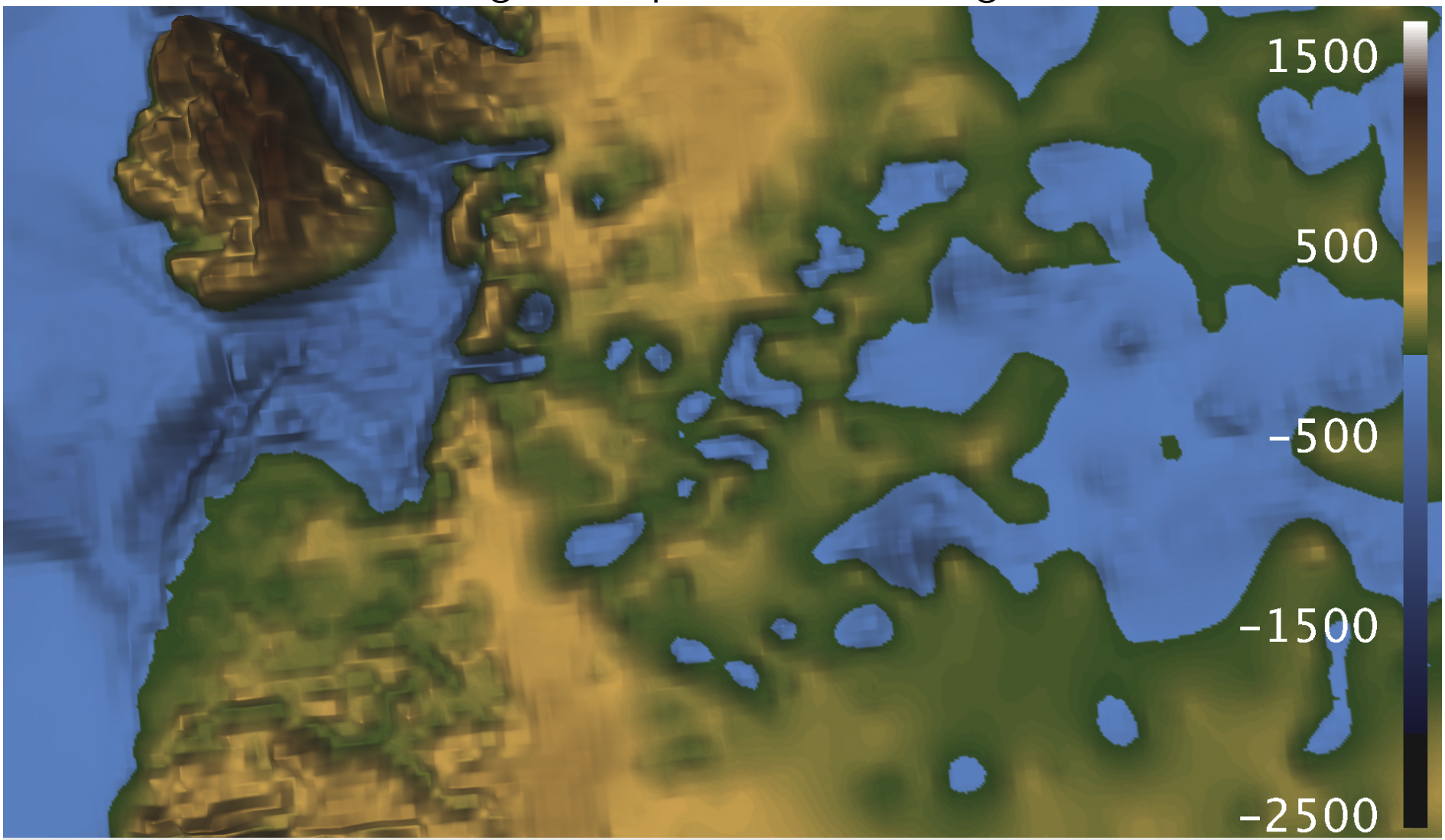
2km grid



Bamber et al. (2001) & CReSIS

Jakobshavn close-up: regional model

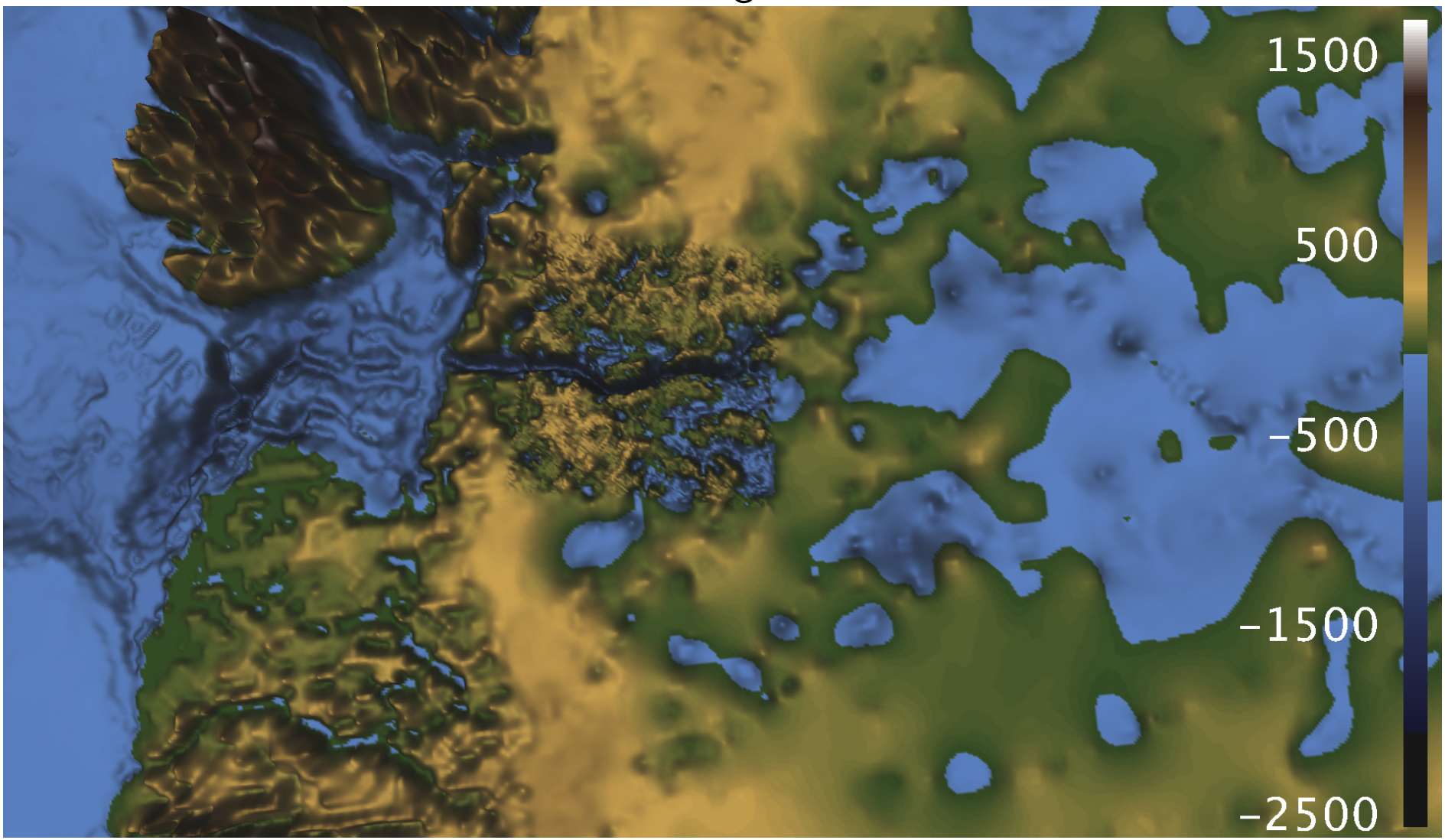
5km grid interpolated onto 1km grid



Bamber et al. (2001)

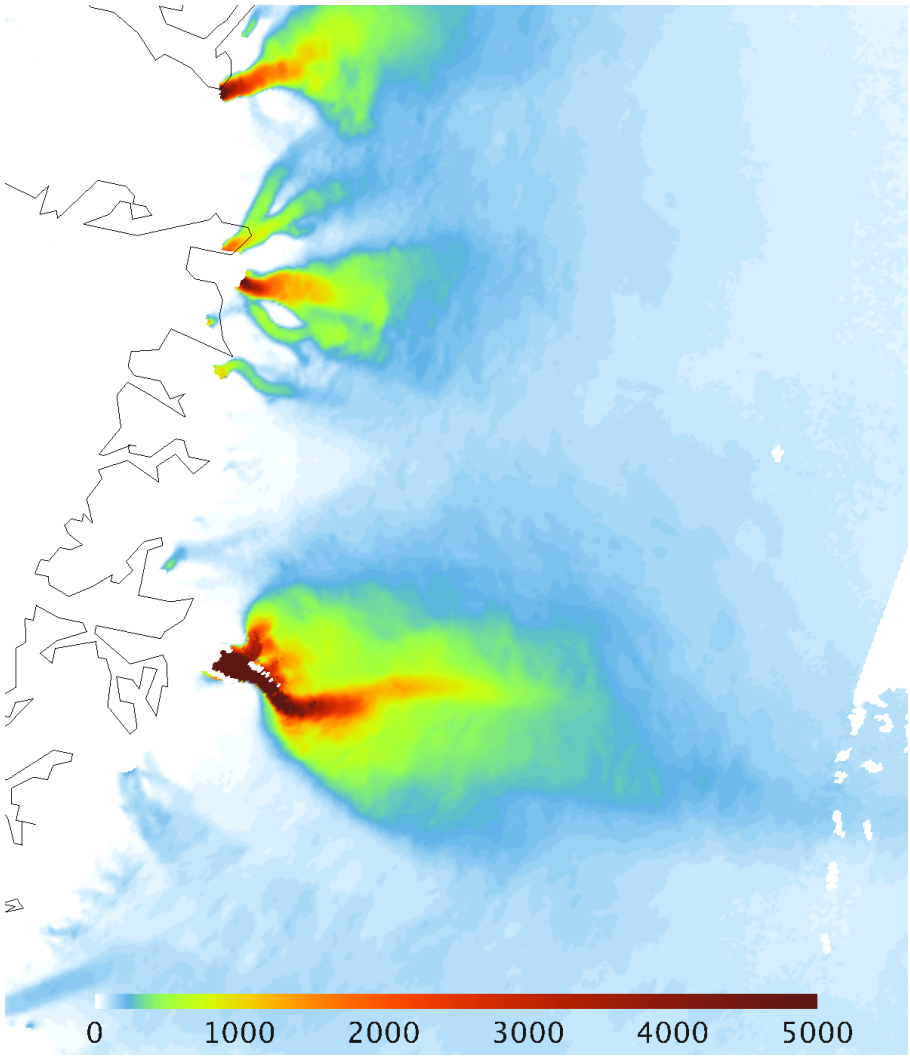
Jakobshavn close-up: regional model

1km grid

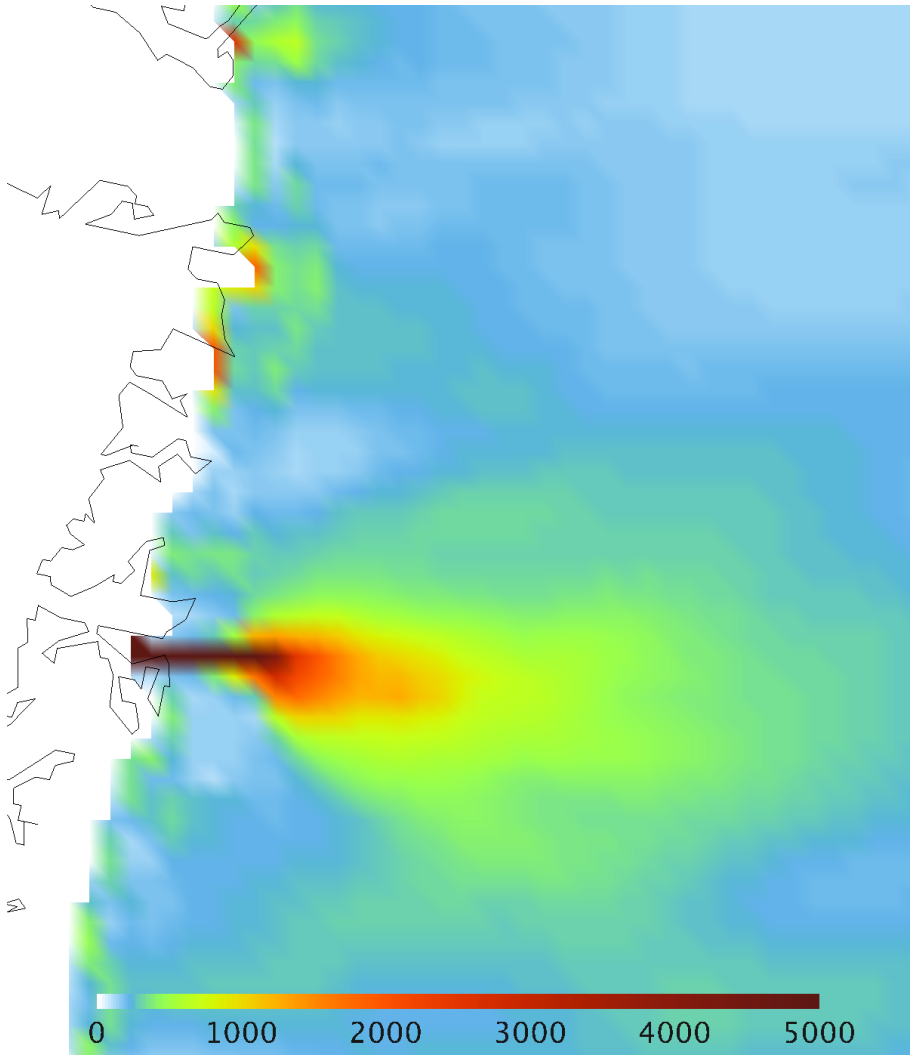


Bamber et al. (2001) & CReSIS

Jakobshavn close-up: regional model

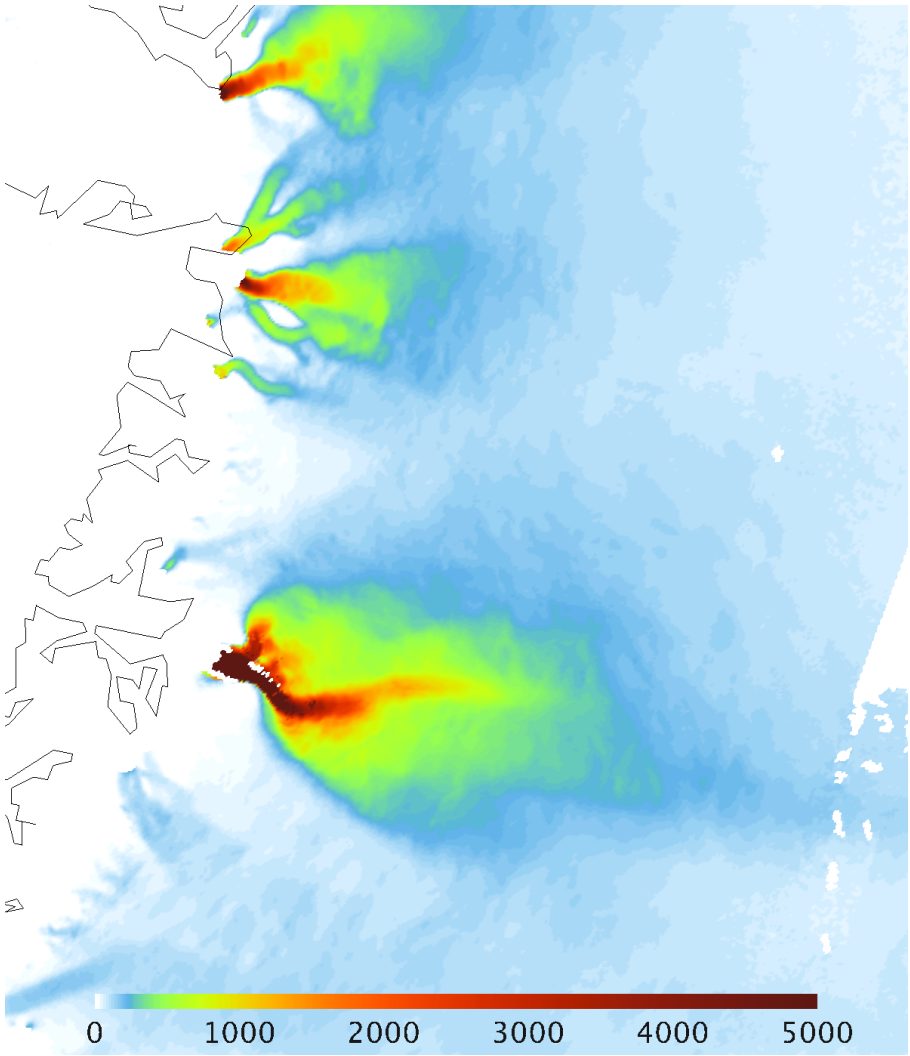


InSAR (Joughin et al., 2010)

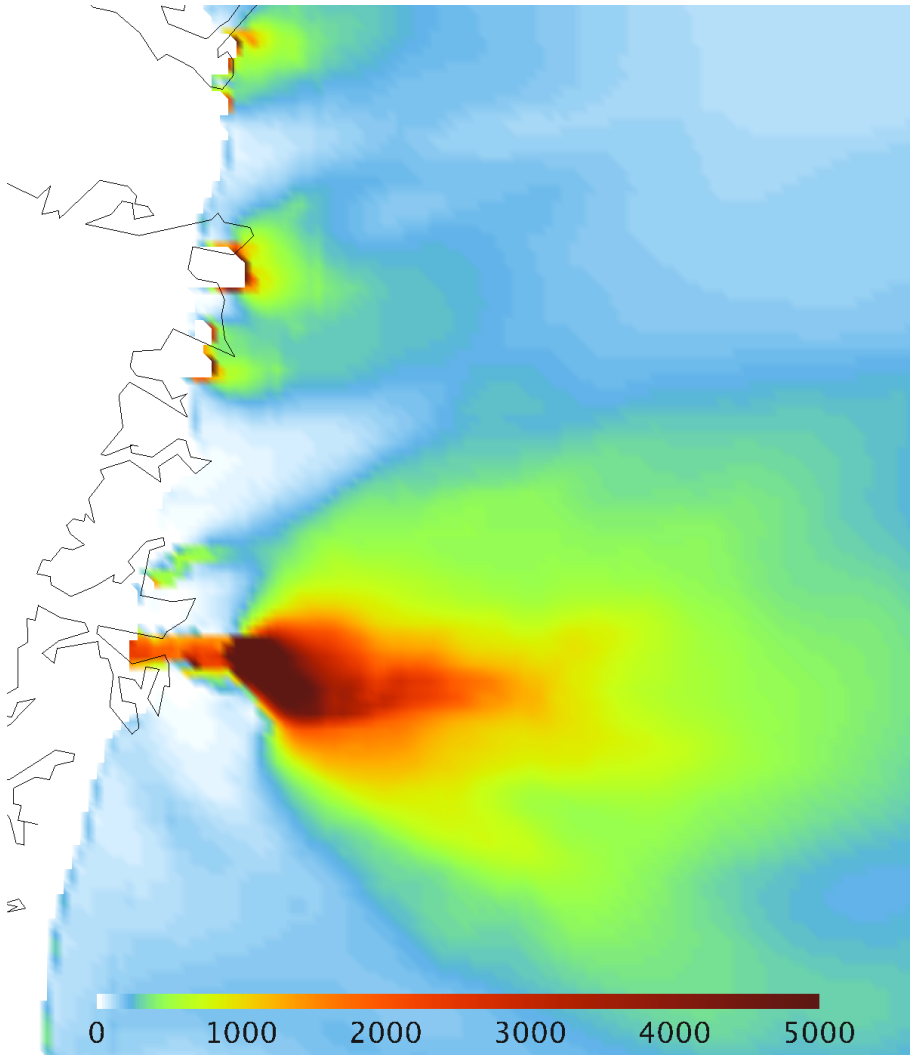


5 km grid resolution

Jakobshavn close-up: regional model

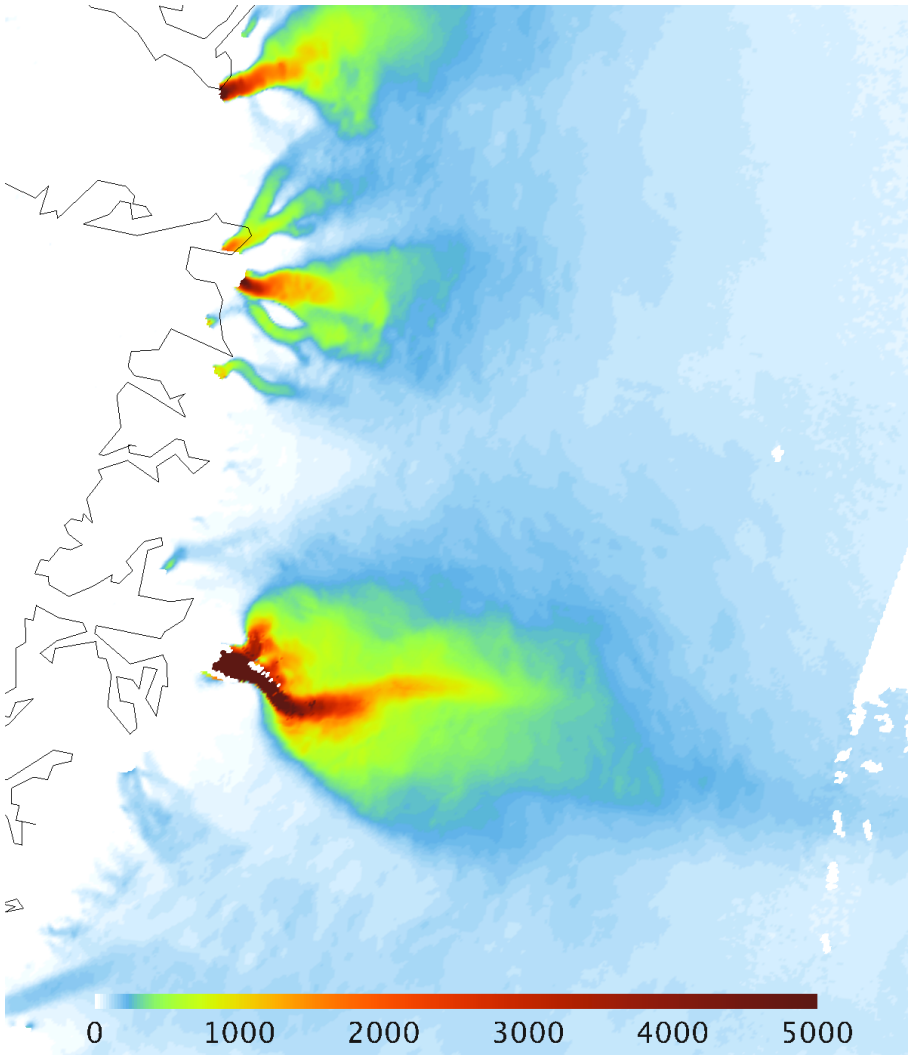


InSAR (Joughin et al., 2010)

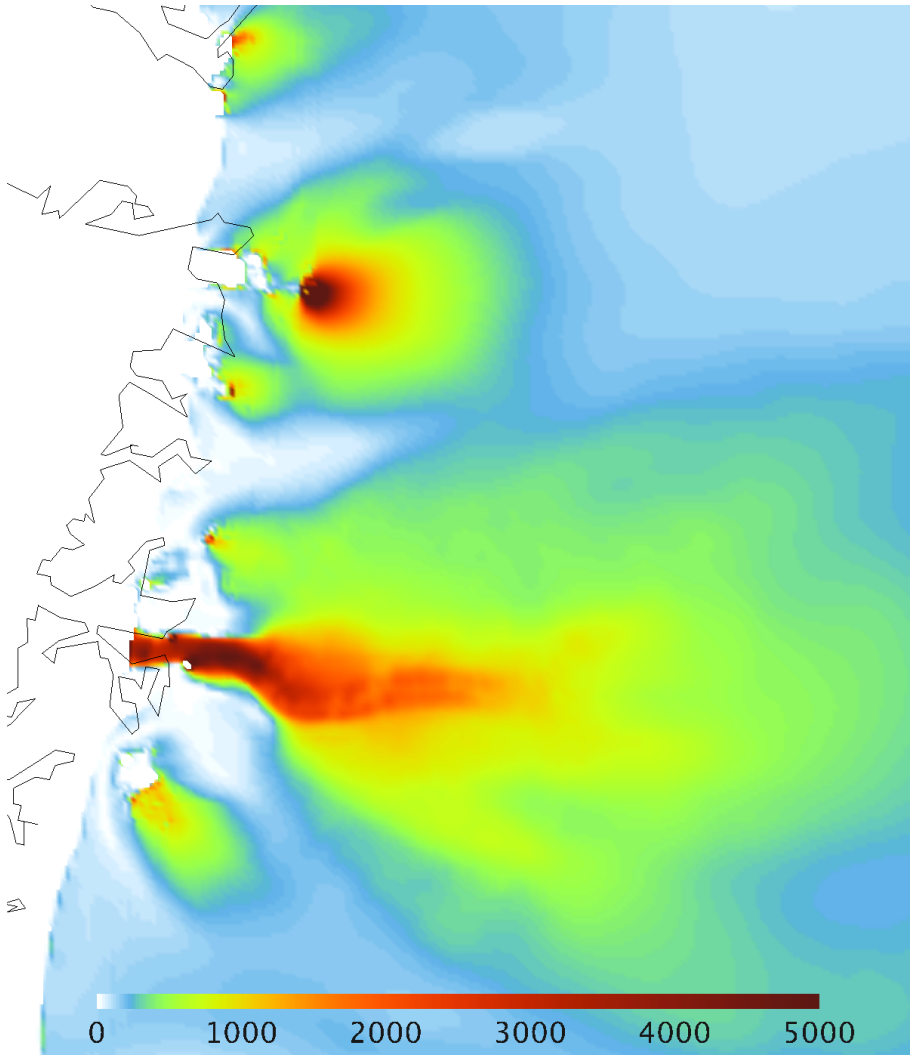


2 km grid resolution

Jakobshavn close-up: regional model



InSAR (Joughin et al., 2010)



1 km grid resolution

Wishlist

As whole-ice sheet modelers:

1. We benefit from well-documented data processing from the original flight lines to gridded products, along with data quality assessment.

Wishlist

As whole-ice sheet modelers:

2. We benefit from
   - well-documented and
   - meta-data rich

data in a standardized, open-source format

no ascii text

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no proprierty formats

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D1@@@@@$!#$@@@\^diai~@@@@@<>~~~!!!@@@@@@
```

Wishlist

As whole-ice sheet modelers:

3. We are aware that the data-processing step in between data collection and the actual use of the data in various applications (like ice sheet models) is important and highly non-trivial. It deserves the attention and care of experts in this field.

Wishlist

As whole-ice sheet modelers:

4. When interpolation (e.g. kriging) is used to generate gridded data, the associated error estimates are almost as important as the resulting fields. We understand that the tools typically used for such interpolation also generate these estimates.

Wishlist

As whole-ice sheet modelers:

5. We are not necessarily experts in remote sensing, data collection and data processing, and we highly appreciate the work of those who are.