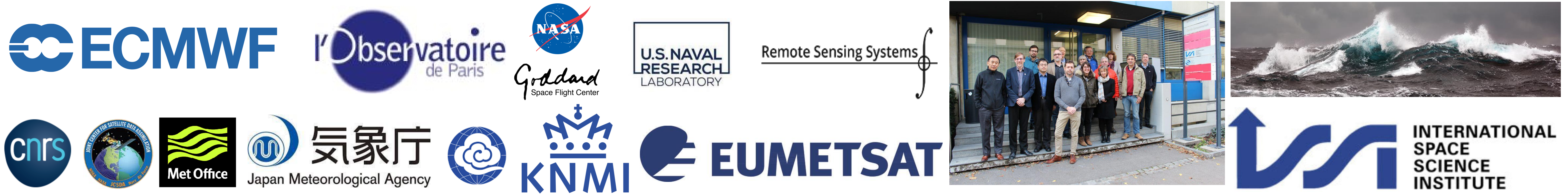


A reference ocean surface emission and backscatter model



English S., Prigent C., Dinnat E., Anguelova M., Meissner T., Kilic L., Johnson B., Boutin J., Supply A., Newman s., Kazumori M., Weng F., Bettenhausen M., Stoffelen A., Accadia C., Nalli N.

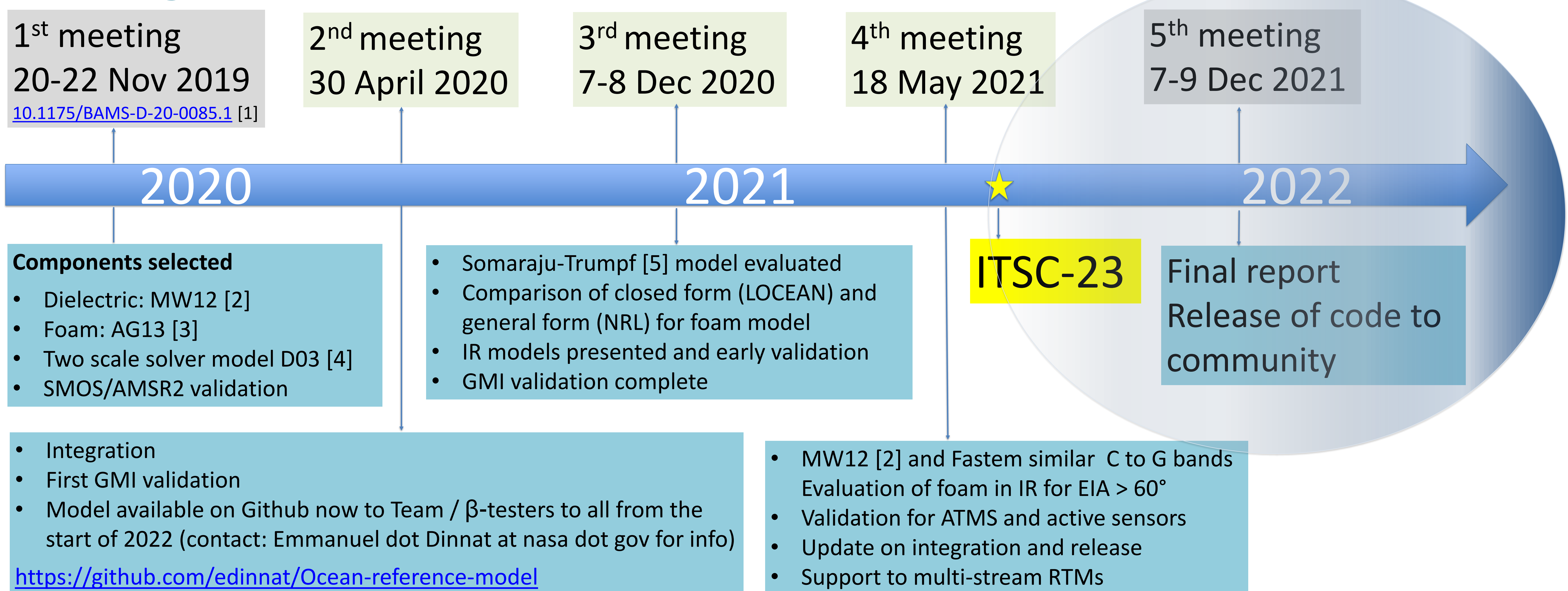
stephen.english@ecmwf.int



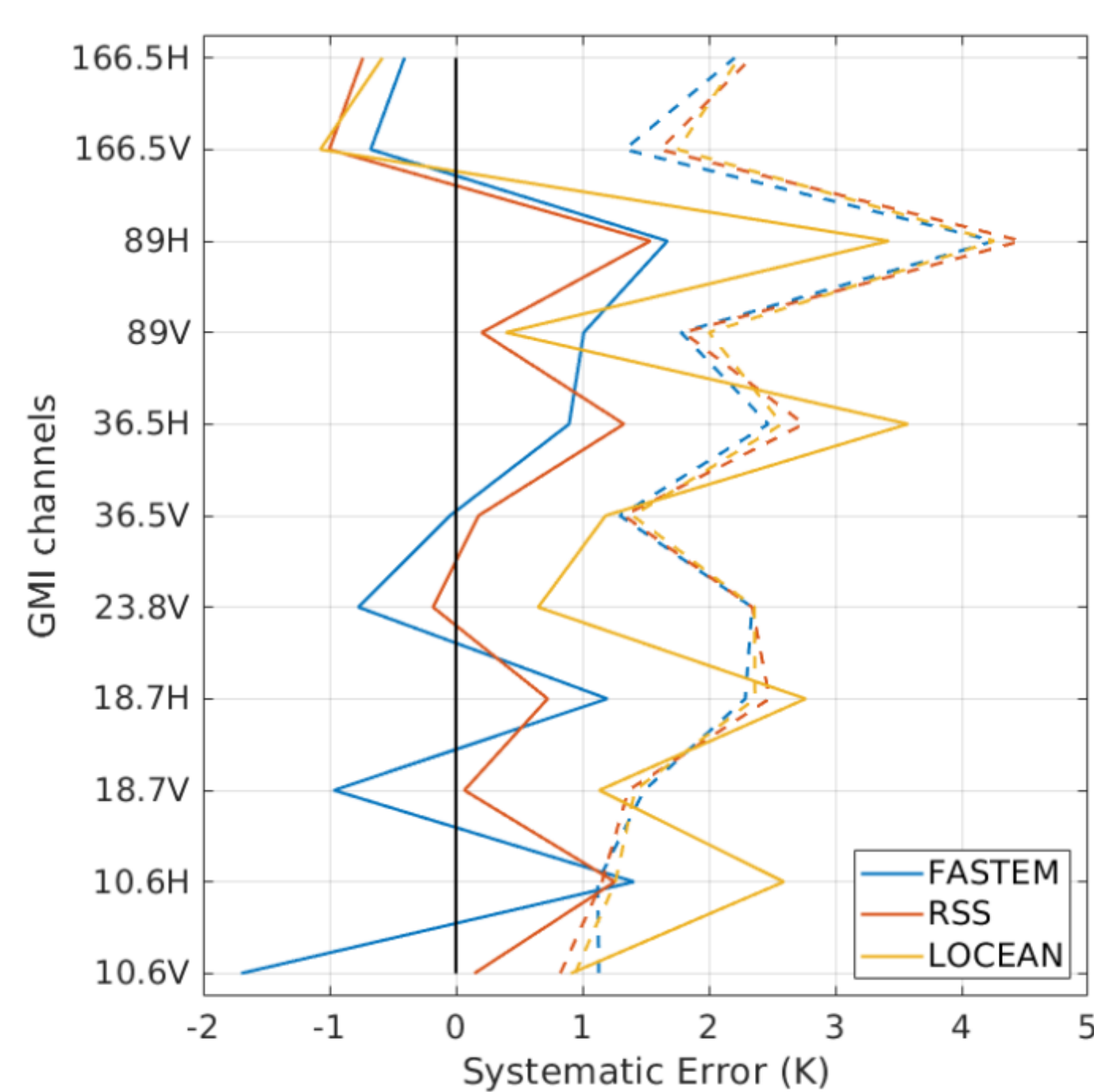
Our goal

To develop a reference quality ocean surface emissivity and backscatter model combining existing state of the art components and to provide to the community through Github a well documented, well supported and validated community model. The International Space Science Institute (ISSI) selected this for an international team working from 2019-2021.

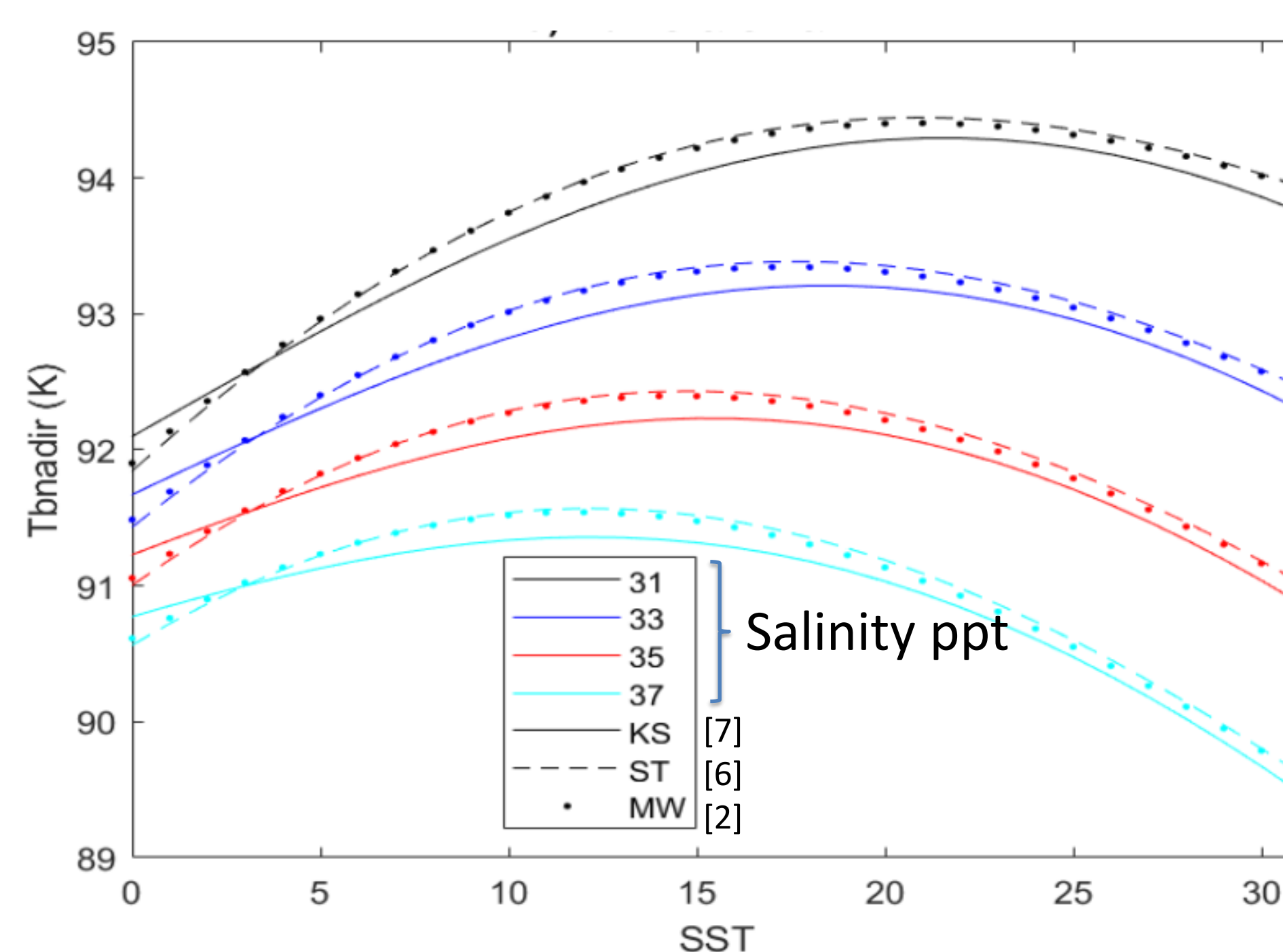
Our progress



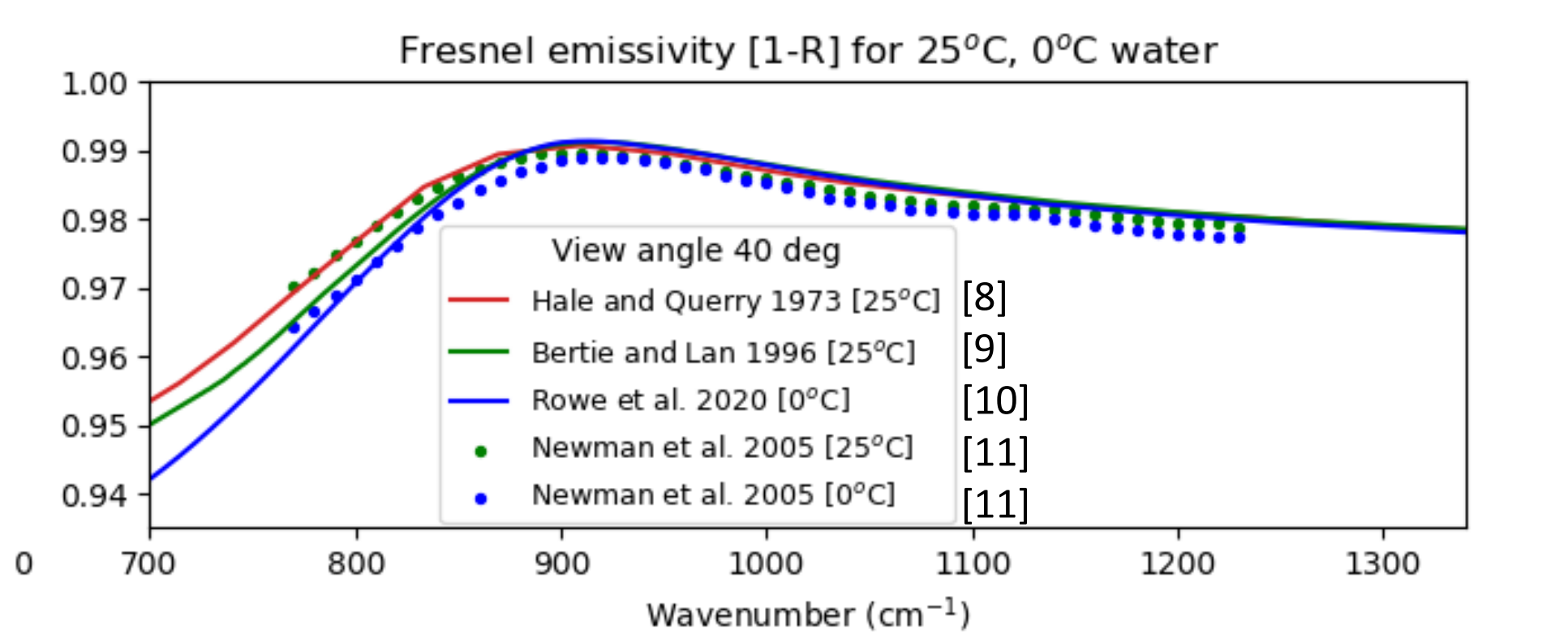
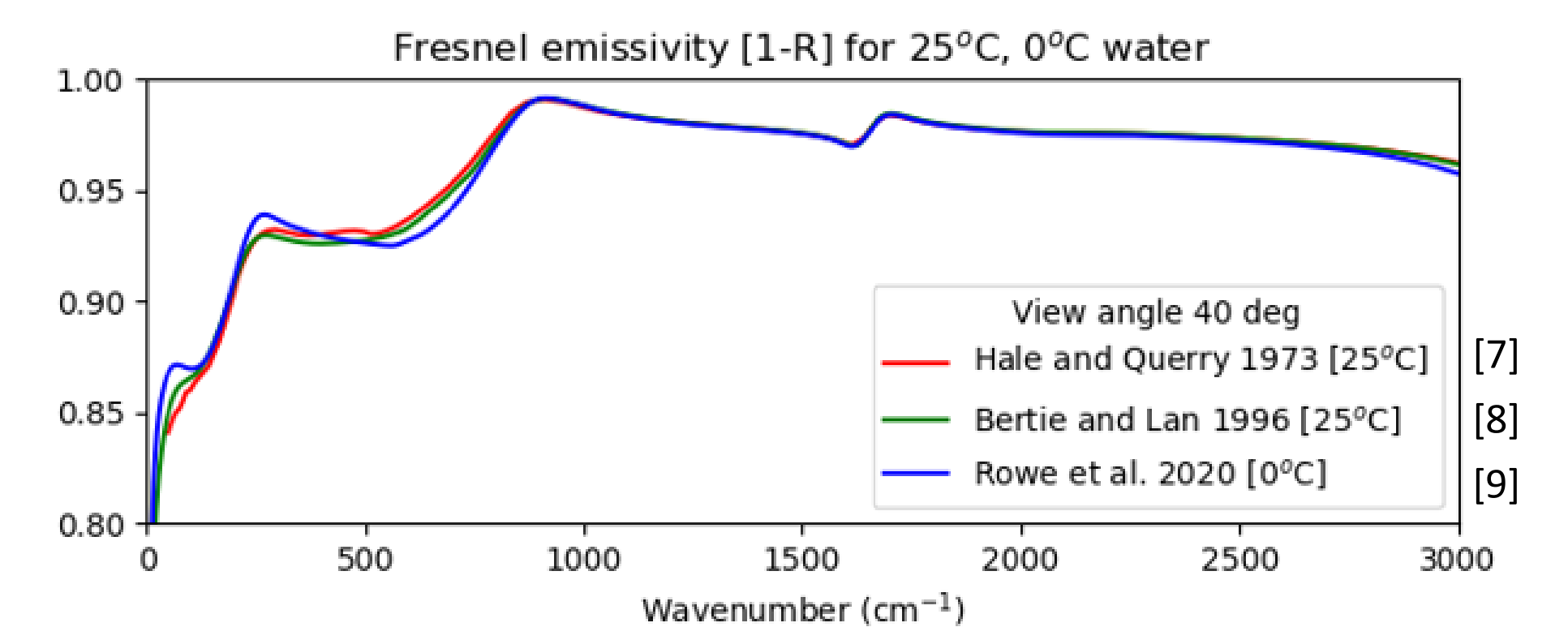
Examples of the team's work



Validation vs GMI



Dielectric model comparisons



Evaluation at IR frequencies

Next steps

- The model will be called "PARMIO = Passive and Active Reference Microwave to Infrared Ocean".
- Documentation and user guide to be made available, beta testing with wider community. ITWG members can ask Emmanuel Dinnat to be β -testers
- The model is available on Github. <https://github.com/edinnat/Ocean-reference-model>.
- Additional validation, notably against ATMS, ASCAT and Sentinel-3.
- The model will rely on community support when the ISSI activity closes at the end of 2021.
- It will be used to generate coefficients for a new fast NN based model which will become Fastem-7.

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