Field Report for MUST 19 "USCT data challenge"

Participants

<List yourself, your working group and affiliations; if you would like to publish your results anonymously please indicate here>

Used data set(s)

<Name applied data set(s) and indicate if and which empty measurement was used>

Applied algorithm(s)

<List applied algorithm(s), short description and - if available - citation of corresponding publication. Please also include a description of preprocessing and post processing methods if applied. If open-source, please provide URL.>

Added noise and other complications

<We encourage to make the provided data more realistic by adding noise, jitter, etc. List added challenges. E.g. describe used noise model, SNR, etc. >

Result(s)

<If available: resulting images with URL to raw data. Please use the tools provided in the git repository of the data challenge to convert the final images to the provided data format. Furthermore, please provide resulting metrics (e.g. PSNR, FWHM, mean speed of sound, etc.) if available and indicate the computing requirements to obtain the reconstruction, in particular, wall-time, and hardware. Please distinguish two cases: (i) What is the total time to obtain a single reconstruction (including all setup and processing steps), (ii) What would be the reconstruction time for additional datasets that use the same acquisition geometry? >

Discussion and Conclusion

<If possible include discussion and conclusion of your results and also your experience in applying your algorithms to the provided data. E.g. How much effort did you need to get it working? What was the reason it did not work instantly? etc.>

Problems with data

<Describe shortcomings of presented data in relation to your algorithm. What would be optimal data for your algorithm? Examples could be: more bandwidth, different frequency range, higher SNR, more transducers, different transducer characteristic, different aperture etc.>

Problems with interface software / data format

<What interface software would you need to access the data as simple as possible? Also: What kind of data format could make it easier and/or faster. Did you have to apply additional processing steps for your algorithm? >

Problems with meta data

< What additional meta data would your algorithm need to function optimally?>