

## **Thermo-acoustic Tomography with Reflectors**

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Thermo-acoustic tomography (TAT) is an emerging hybrid imaging modality that couples electromagnetic wave with ultrasound. In this talk we discuss the mathematical model of TAT with the presence of sound-hard reflectors. We propose an averaged time reversal algorithm in terms of a convergent Neumann series. Numerical implementation of the algorithm is presented with both full and partial data, and the reconstruction is compared with that of the Landweber iteration as well. This is based on joint work with Plamen Stefanov.