Image reconstruction in proton computed tomography

Zimányi Winter Workshop on Heavy Ion Physics
Budapest
2-6/12/24

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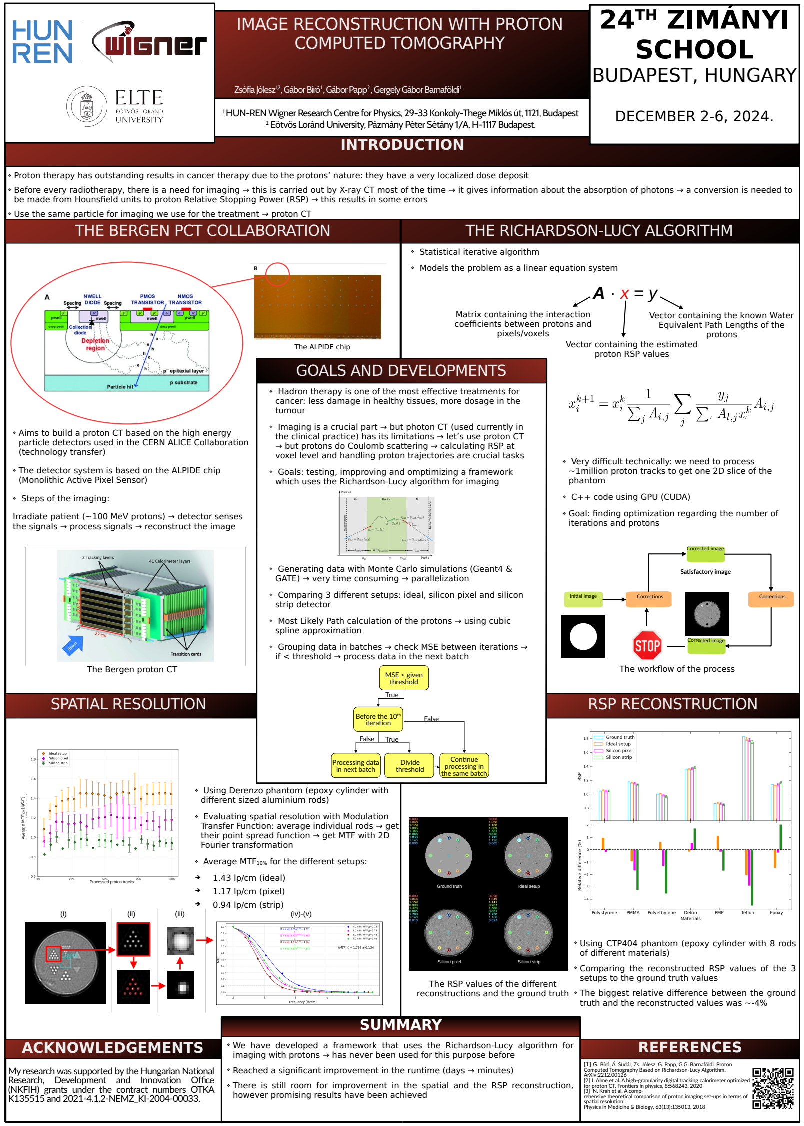
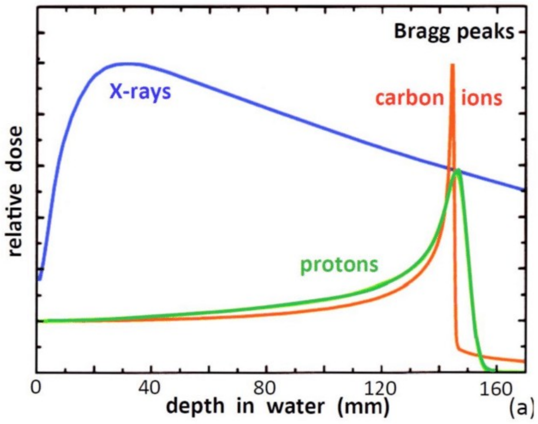
ArXiv:2212.00126

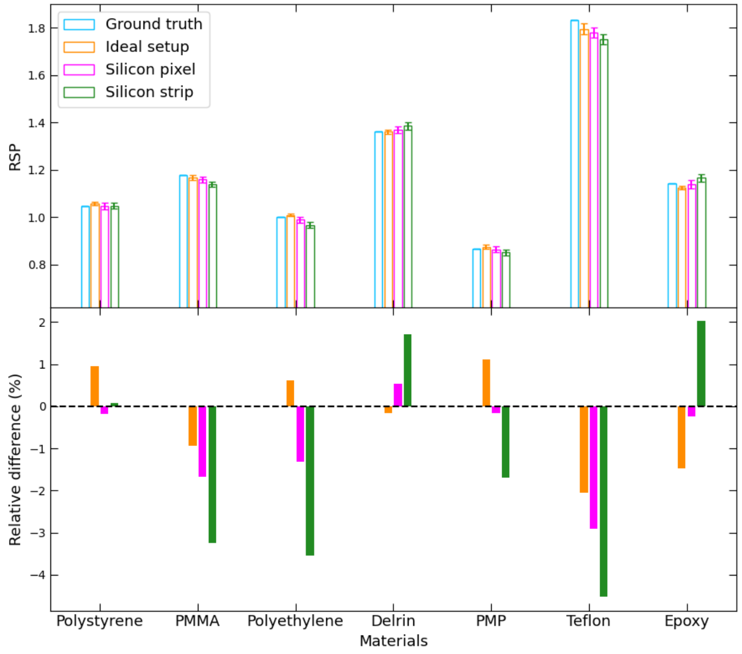


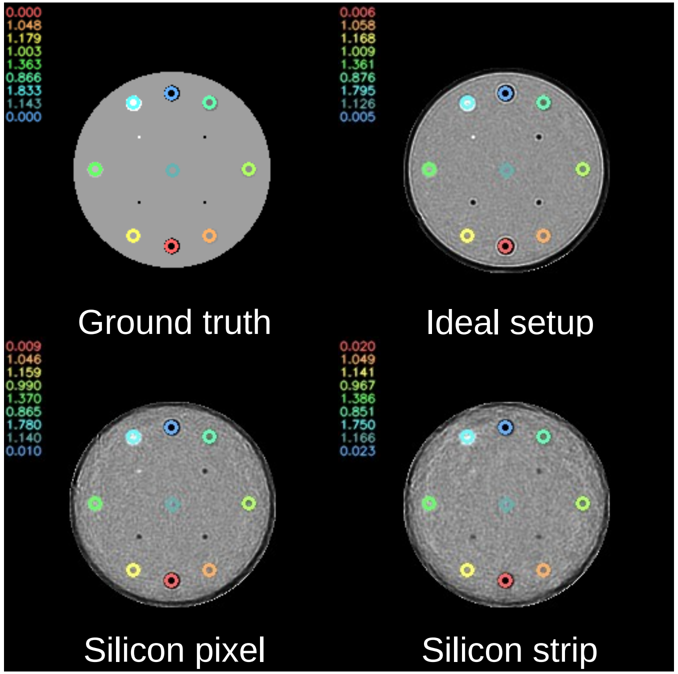
Richardson-Lucy algorithm for imaging



- Protons & heavy ions: Coulomb scattering → Bragg peak → localized dose deposit

- Hadron therapy: outstanding cancer treatment – but there are challenges with the imaging





- First time using Richardson-Lucy algorithm for medical imaging
- Optimizing the framework: speed & accuracy
- Testing the algorithm on 2 phantoms: spatial resolution & RSP reconstruction
- Promising results (using ~10^6 protons), comparable with other used algorithms