S2E Simulations

Linking Lucretia to QuickPIC (and back)

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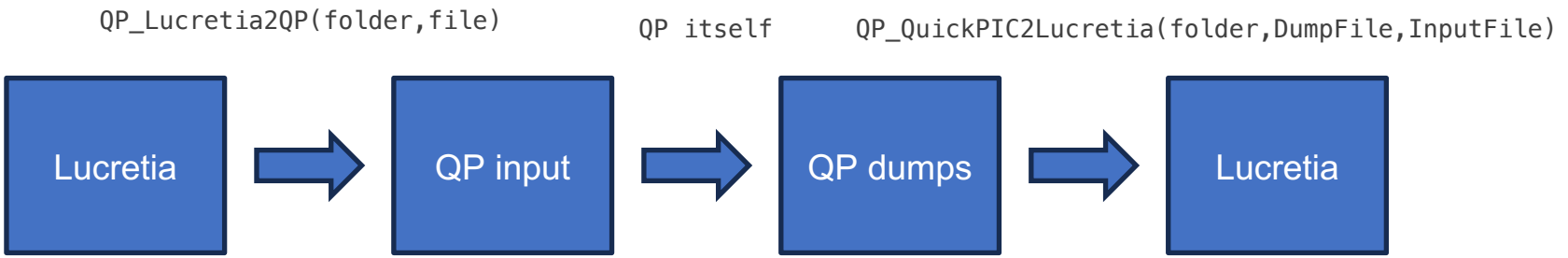
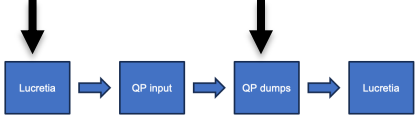
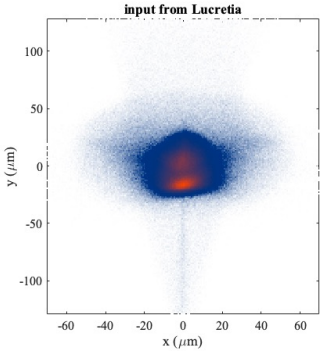
The workflow

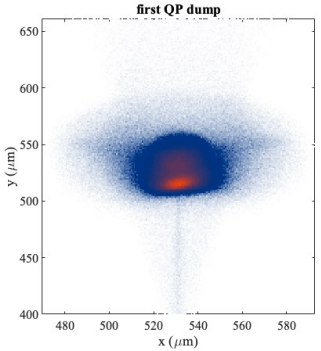


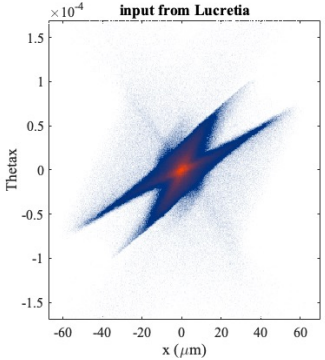
- Lucretia → QP Needs plasma density information for conversion
- QP → Lucretia needs to read input file
- Always save dump and input file
- Convention suggestion: Use equal n0 throughout all simulations. E.g n0=1E16

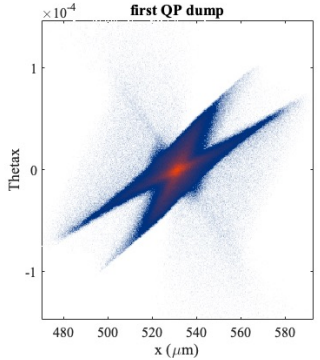
Comparison: Lucretia input - First QP dump

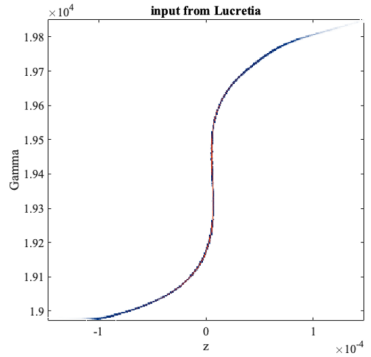


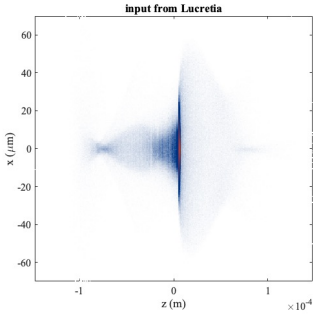


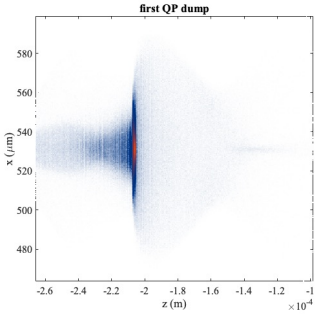


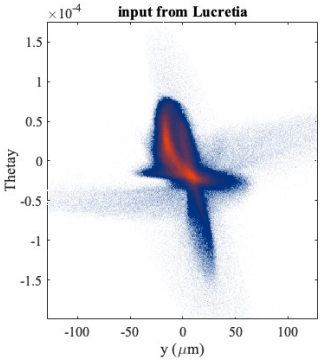


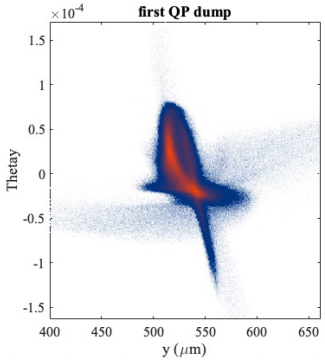


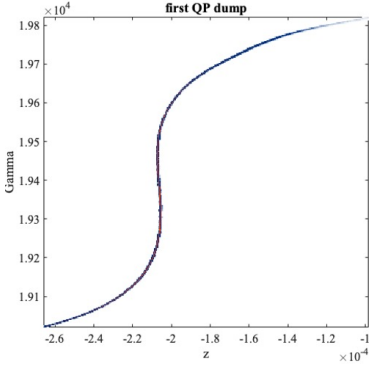












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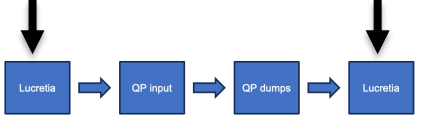
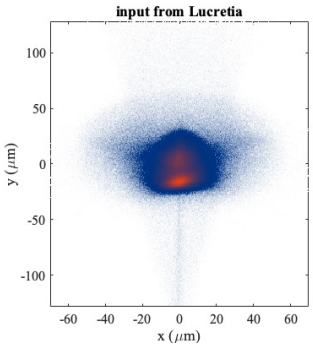
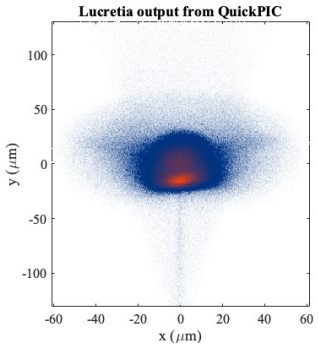
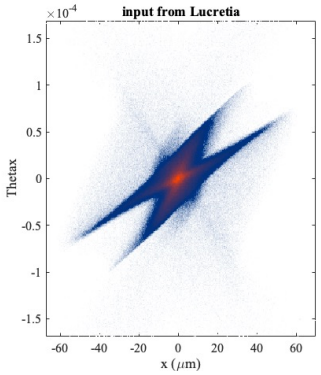
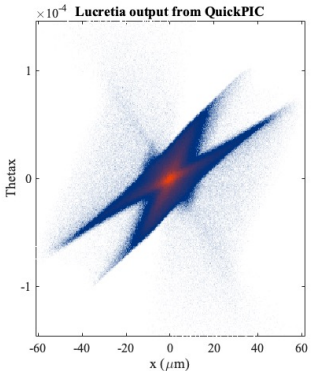
Comparison: Lucretia input - Lucretia output

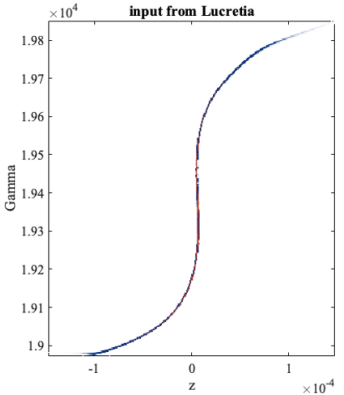


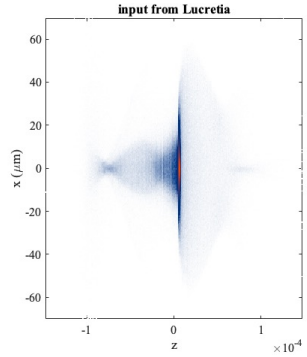


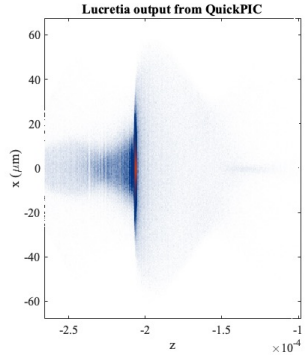


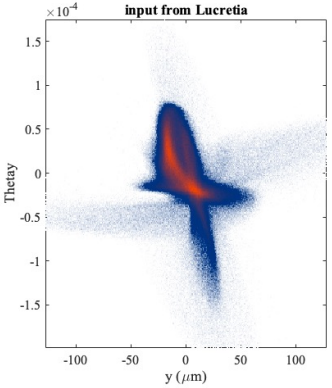


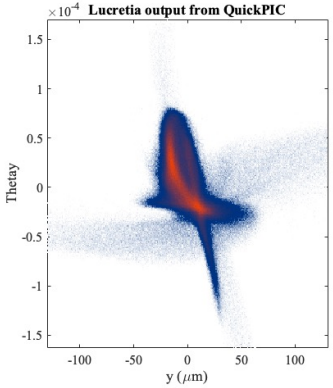


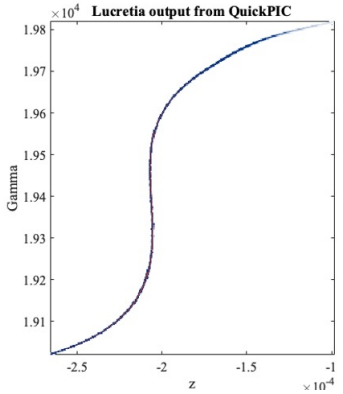












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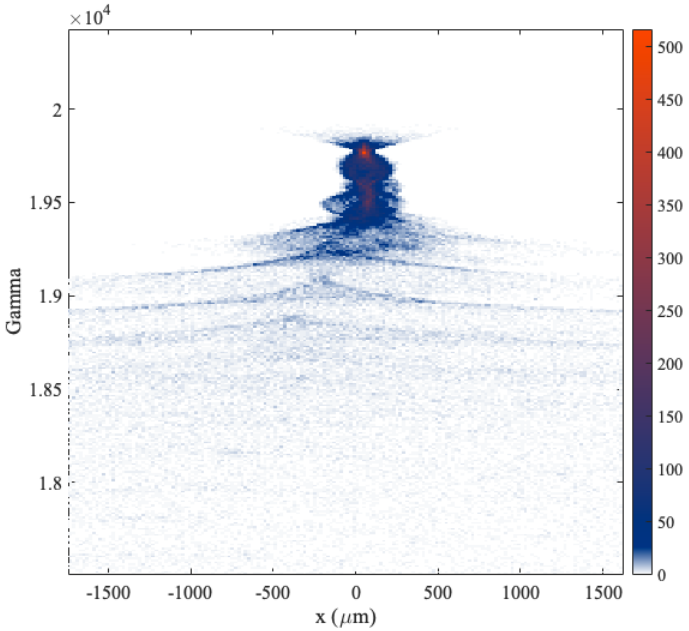
Virtual diagnostic (very preliminary): Espec image on LFOV



More: See Mason's GUI presentation

Where can we run ?

Docker image

You can get it with

docker pull /aknetsch/ubuntu_quickpic

Alex' laptop

Nathans laptop

In preparation ...

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Summary

- In general, the workflow works
- Need to integrate Lucretia for post-plasma diagnostics
- **TODO:** test manipulation of Lucretia to get a feel of workflow convenience
- Docker container works on personal computers
- **TODO:** Container test on S3DF