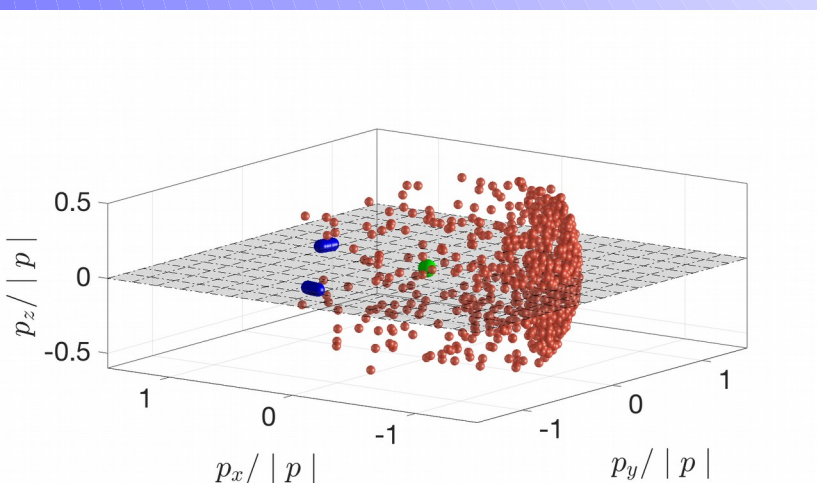
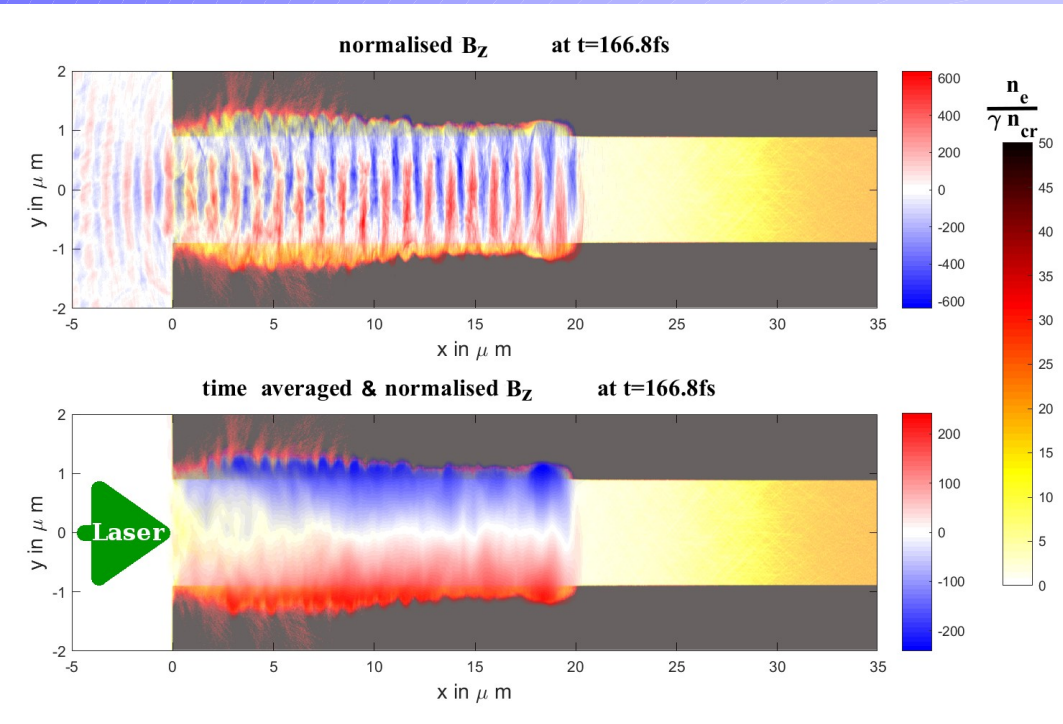
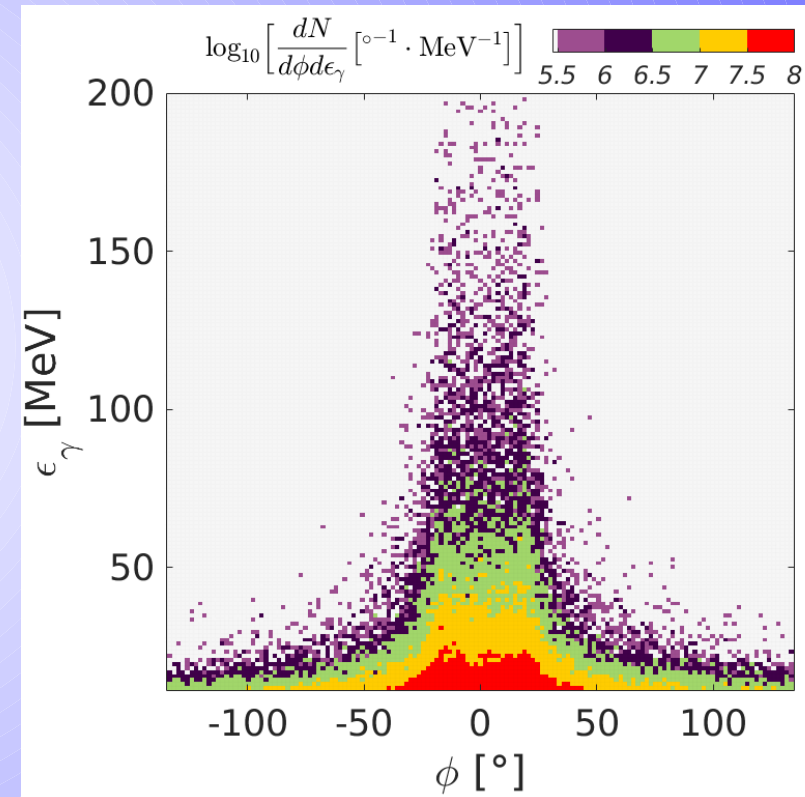


# Oliver Jansen UCSD - MAE

A laser pulse inside a plasma channel leads to the formation of a strong quasi-static magnetic field



Electrons accelerated in the channel emit high-energy photons in the magnetic field of the channel



Those photons can be used for several applications. Here, they are collided in order to create electron-positron pairs (The inverse to the annihilation of an electron and one positron).

## Challenges:

- Post-processing of large data
- Visualization (of large data)
- Development of efficient, parallelized simulations

