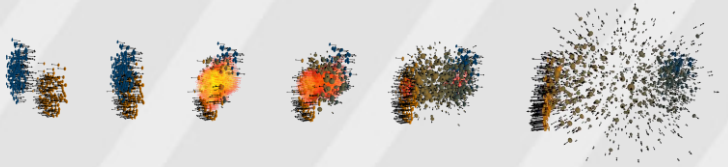
Electromagnetic radiation (γ, γ^*) – multimeter of the fireball in HIC

- reflects the whole history of a collision
- no strong final state interaction ⇝ leaves reaction volume undisturbed
- encodes information on matter properties enabling unique measurements
    - degrees of freedom of the medium (new phases?)
    - fireball lifetime, temperature, flow, polarization ⇝ phase transition
    - transport properties
    - restoration of chiral symmetry



My contributions

- expertise in modeling of dilepton thermal radiation in HIC
- dilepton data analysis & simulations for HADES, CBM, STAR (top RHIC energy, BES-II FXT) experiments

Discussion points (studies of new observables to obtain tighter constraints on the EoS)

- what extra information about QCD matter at high net-baryon density can electromagnetic radiation provide
- how to include this information into Bayesian analyses to constrain the EoS