

MULTIPLE INVERSE COMPTON SCATTERING COMPONENT IN THE AGNJET MODEL



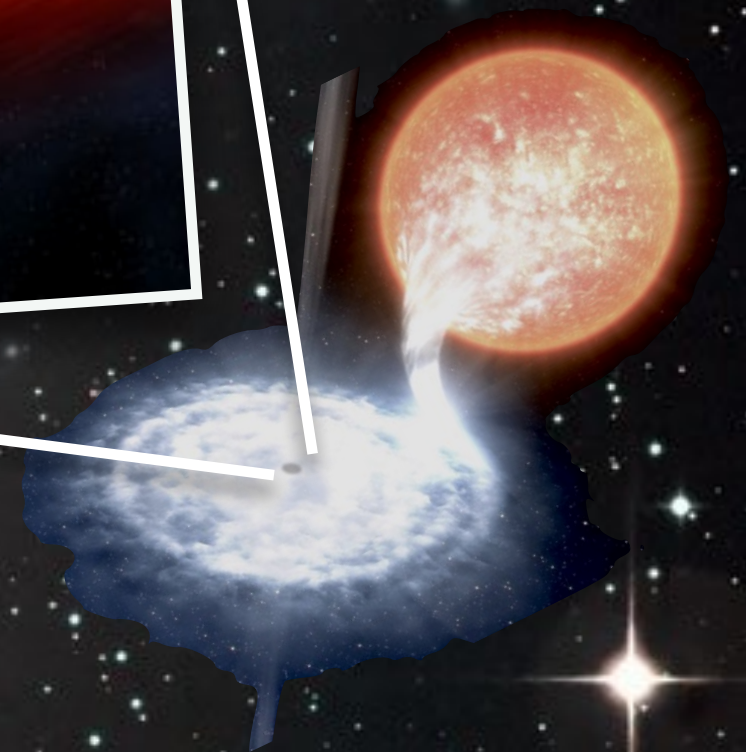
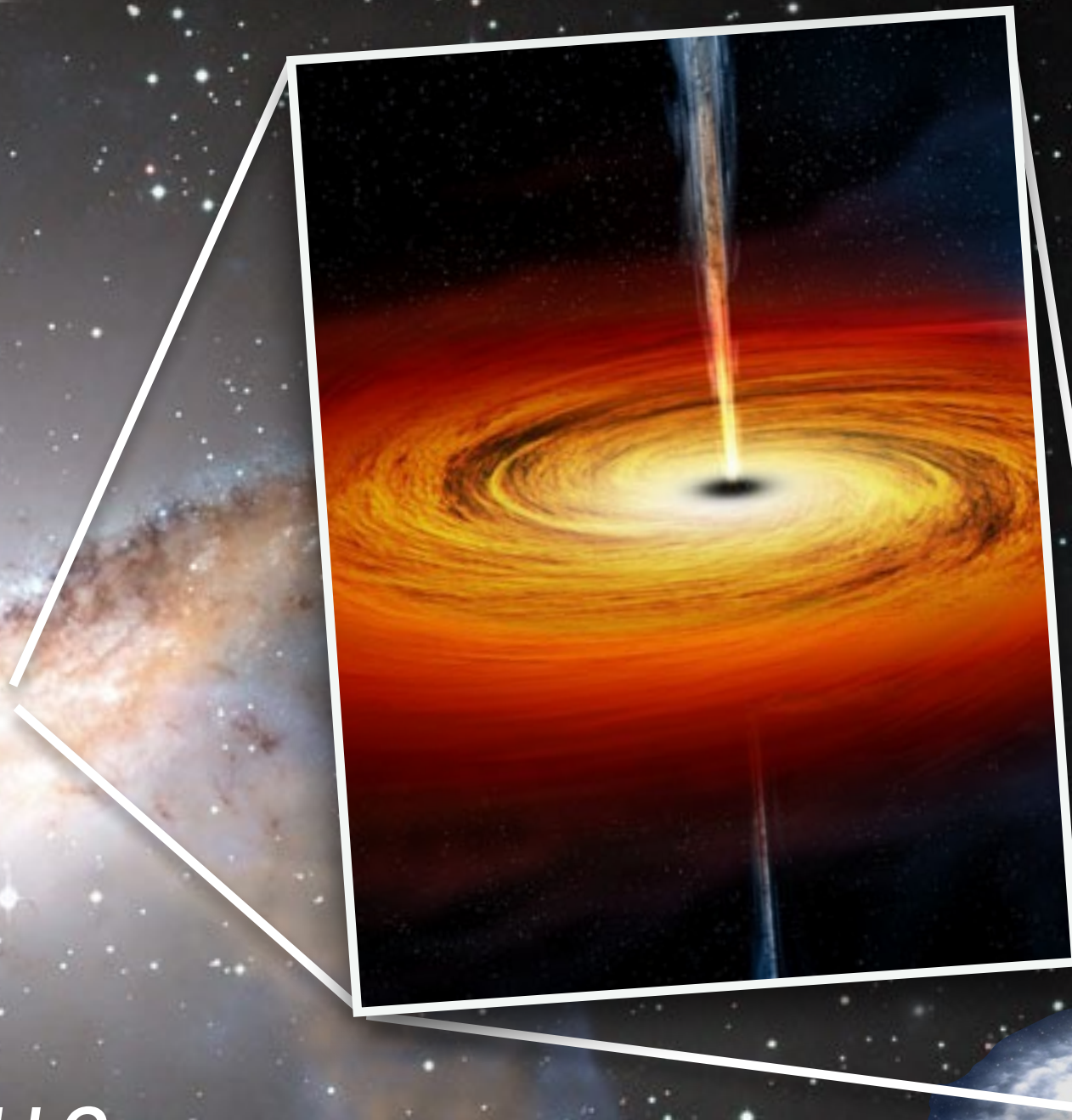
ANTON PANNEKOEK
INSTITUTE

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EWASS 2016 - ATHENS

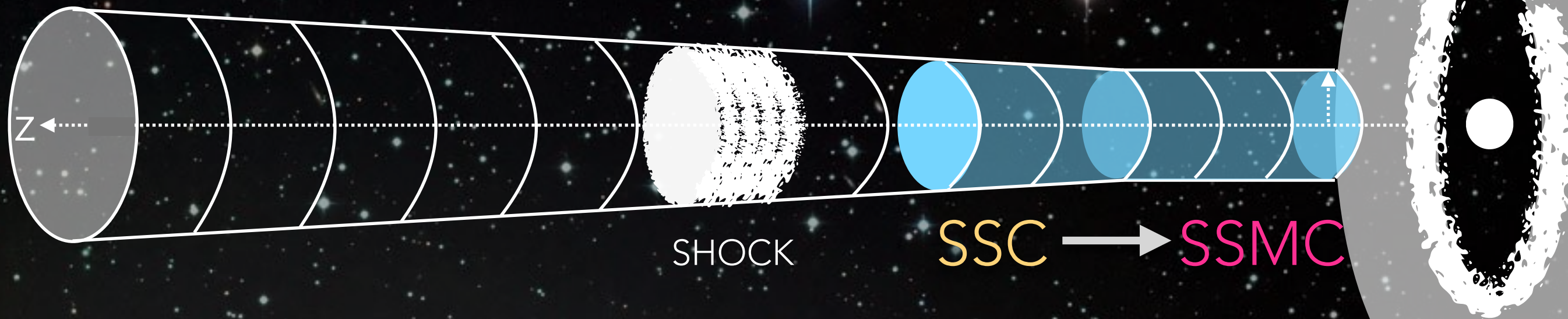
Collaborators:

Sera Markoff, Patrick Crumley, Riley Connors, David Van Eijnatten,
Peter Polko, David Meyer, Martin Heemskerk, Yuri Cavecchi



AGNJET

THE OLD AND THE NEW



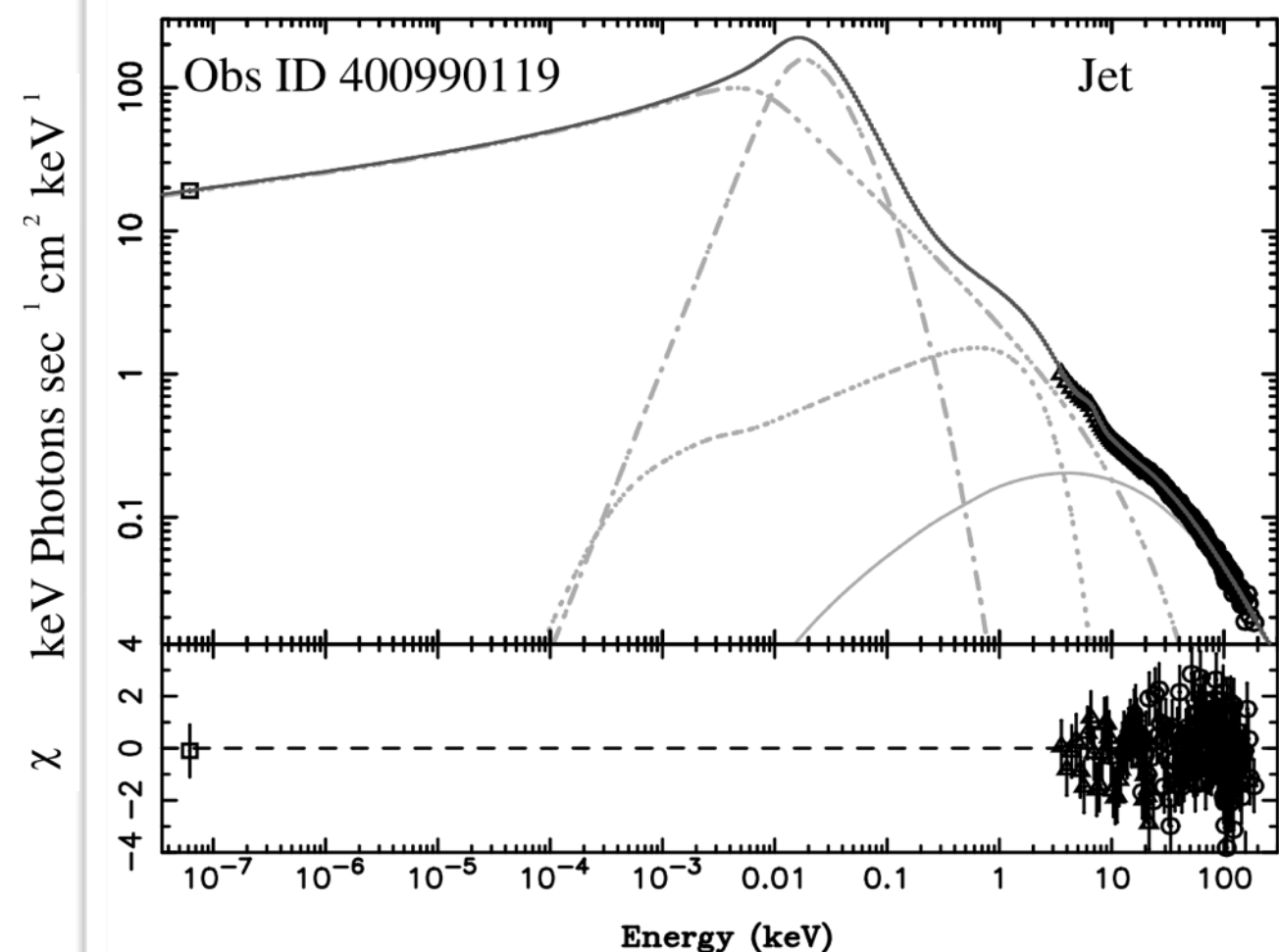
Markoff et al. 2005, Falcke & Biermann 1995, Falcke 1996

Ceccobello et al. 2016 in prep, Connors et al. 2016 in prep

Synchrotron Self Compton SSC

- single scattering (Blumenthal&Gould, 1970)
- very compact nozzle
- high electron temperature
- low optical depth
- no pairs included

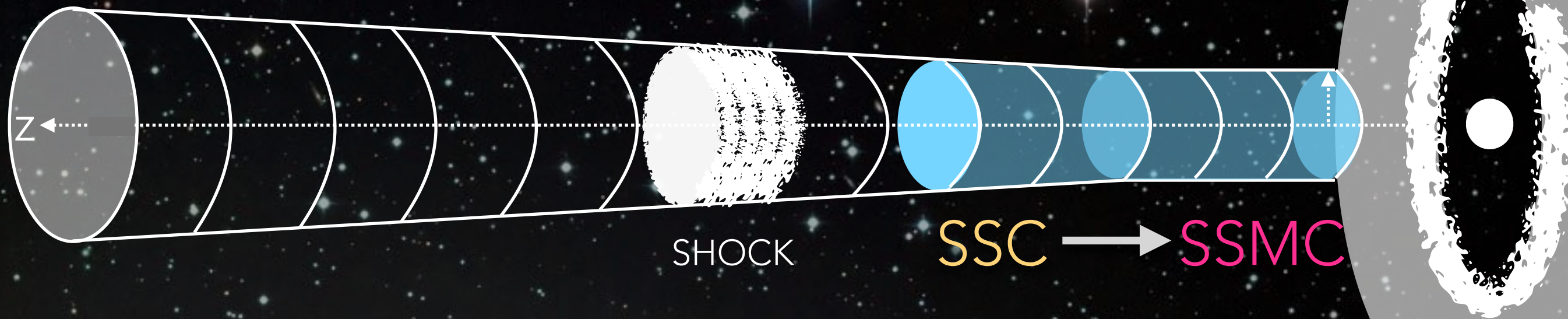
Malzac et al 2009



Markoff et al. 2005

AGNJET

THE OLD AND THE NEW

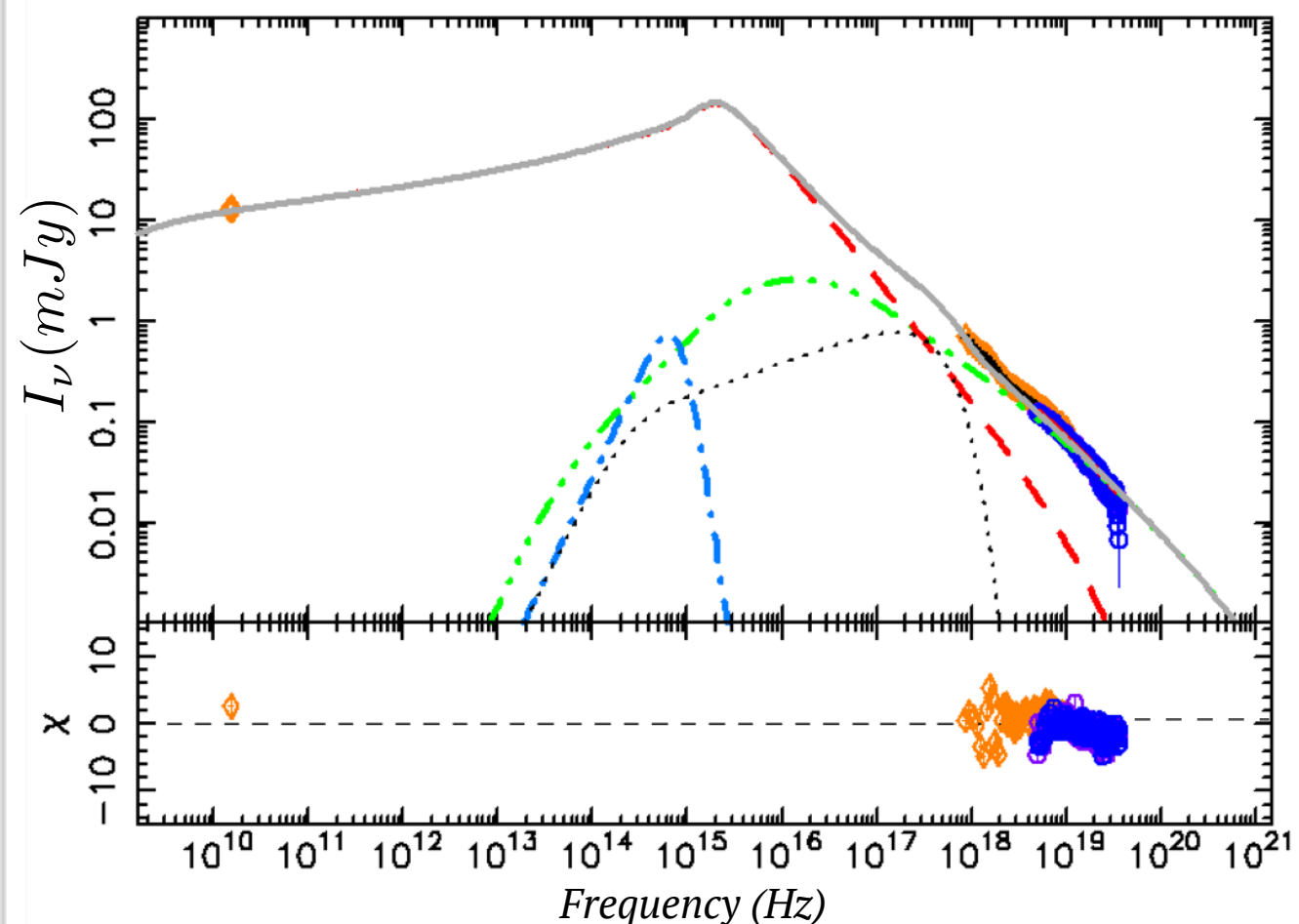


Markoff et al. 2005, Falcke & Biermann 1995, Falcke 1996

Ceccobello et al. 2016 in prep, Connors et al. 2016 in prep

Synchrotron Self Multiple Compton SSMC

- multiple scattering (Blumenthal&Gould, 1970)
- no need for compact nozzle
- lower electron temperature
- higher optical depth
- pairs still not included, but...

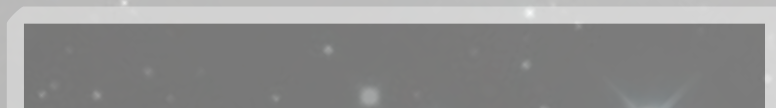
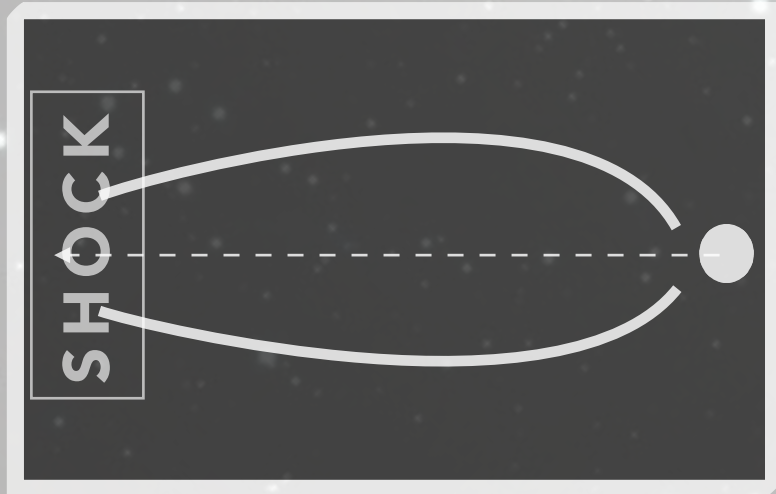
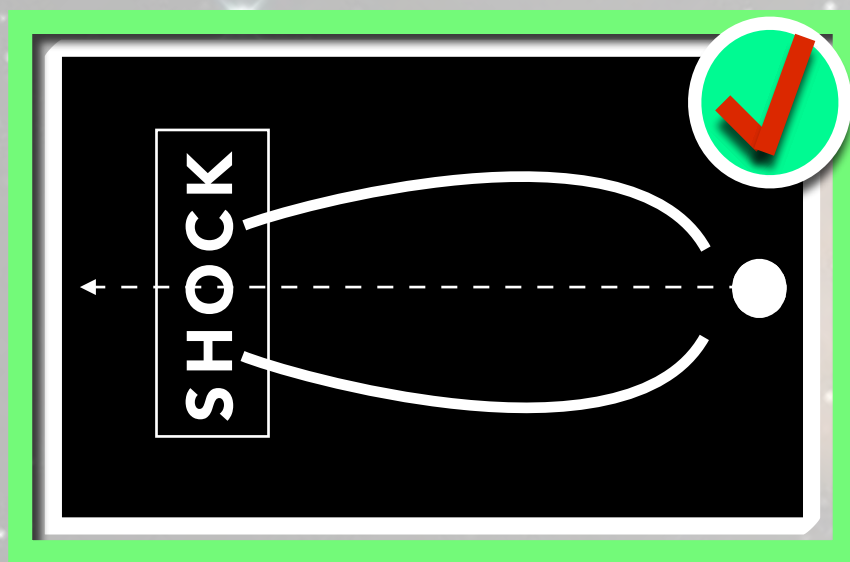
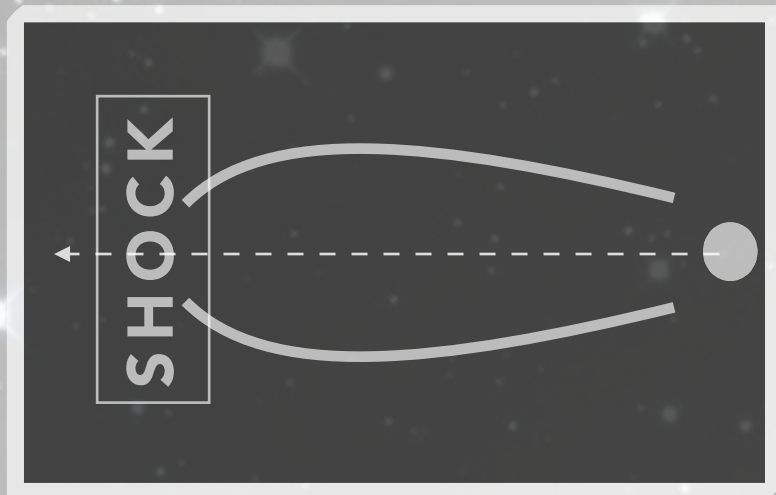


WHAT'S NEXT

MHD NOZZLE

...and more:

Pair production/annihilation
External inverse Compton



Ceccobello et al, in prep
Polko et al. 2011, 2013, 2014
Vlahakis & Königl 2003
Vlahakis et al. 2000