

Time-of-flight

Reciprocal space

Explorer @ ESS

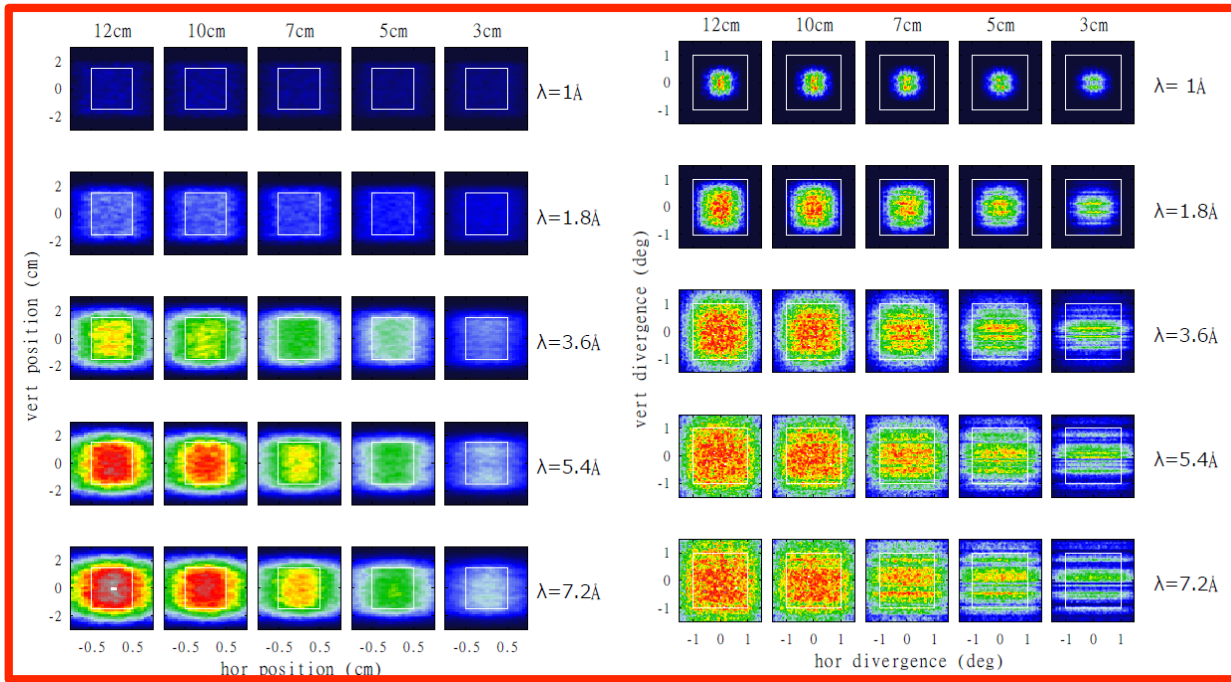
A bispectral chopper spectrometer for magnetism and material science

Nicolò Violini

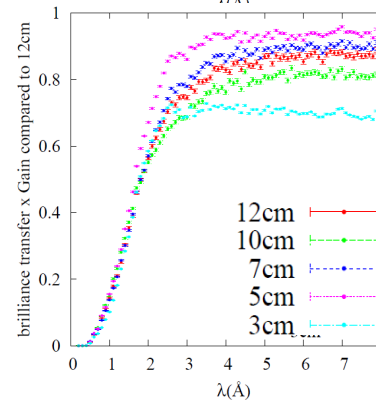
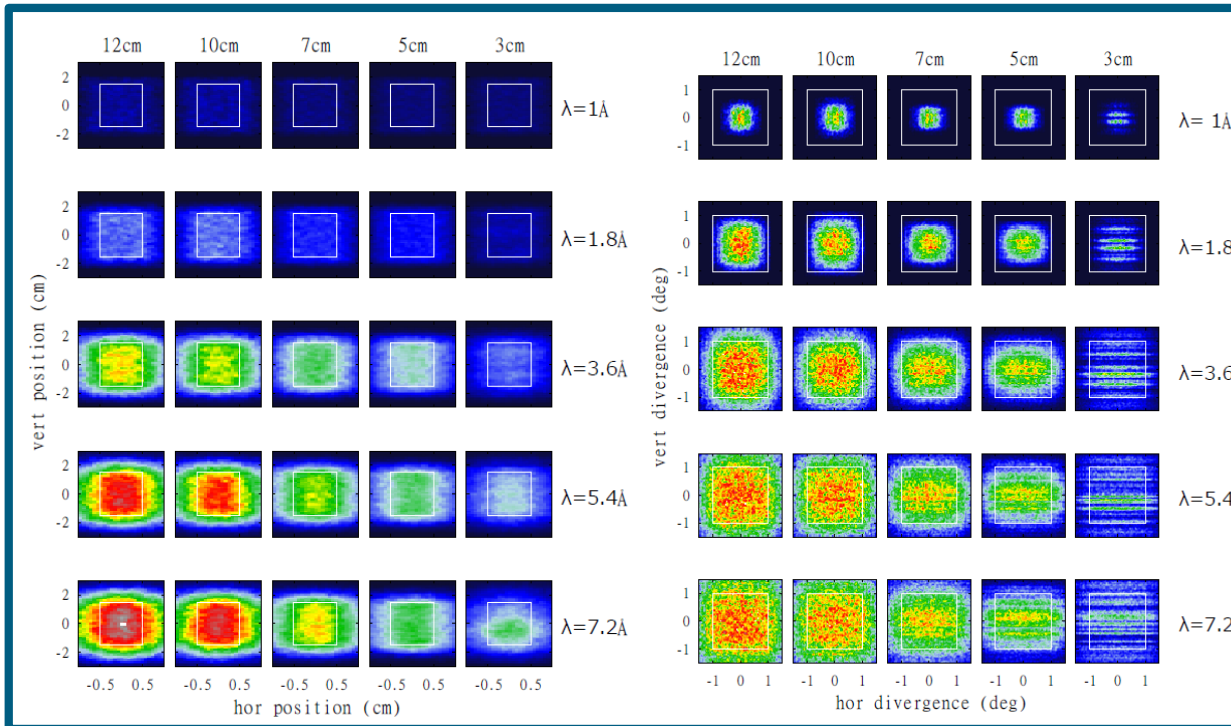
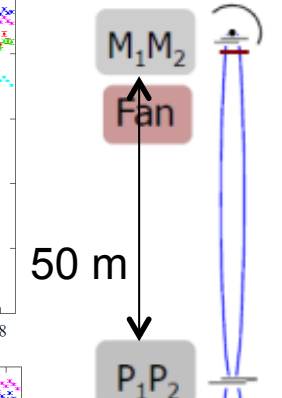
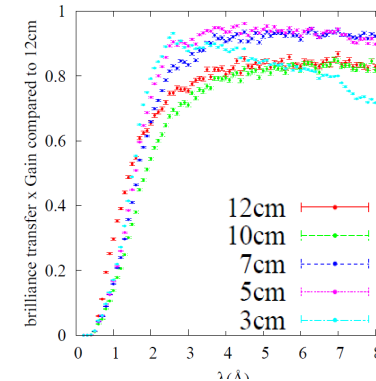
Lund, Pancake moderator continuation Meeting, 12th February 2014

1st task: Envisaged guide

T-REX layout
R.o.I.:
1x3cm² +/-1°

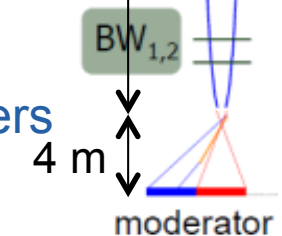


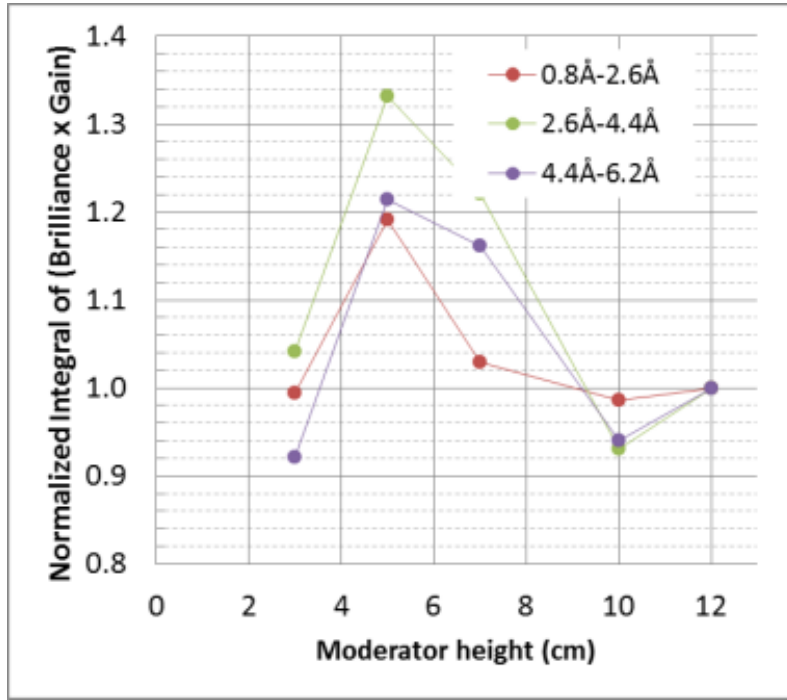
Decreasing
solid angle !



- Solid angle
- Beam profiles

2nd task:
Optimal parameters



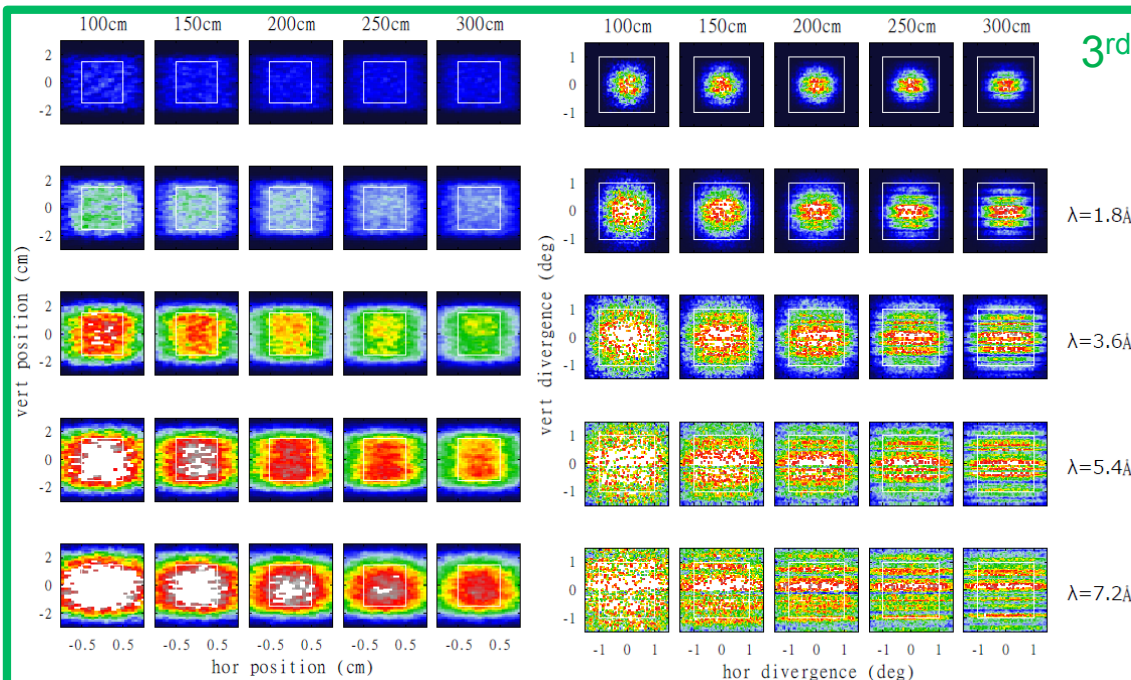


Task 1 + Task 2:

- possible gain 1.2-1.35
- Max identified at 5cm height
- Bispectral extraction
- Smaller sample area?

Possible gain 1.7 !

x 1.35 = 2.3
with respect to baseline 12cm!



3rd task: Extending the guide backwards 3cm moderator

