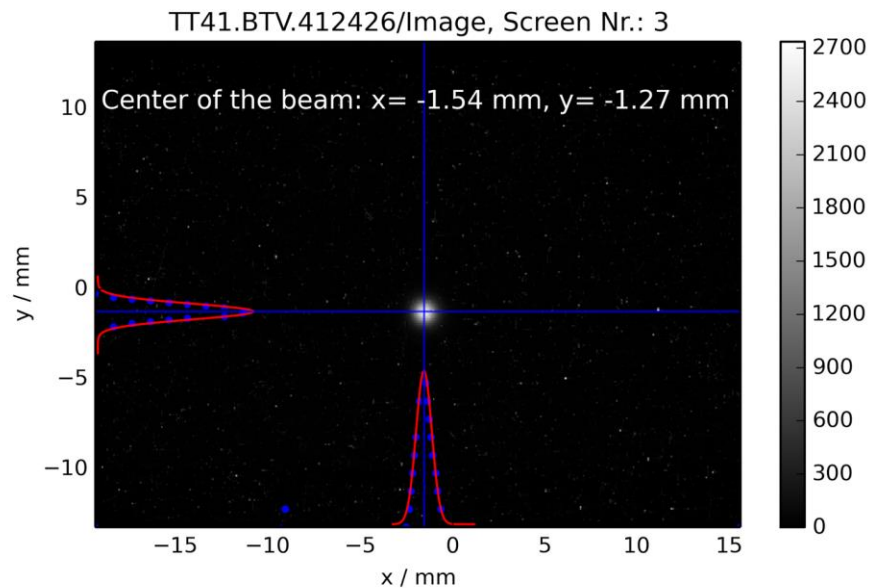


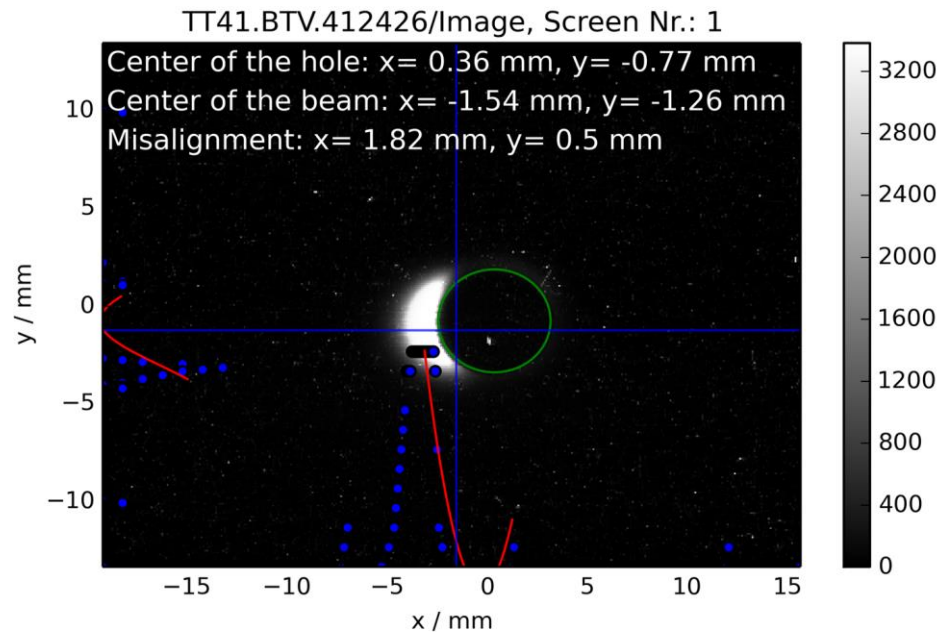
# Commissioning results of the SMI-BTVs

M. Turner, J. Schmidt, B. Biskup, E. Gschwendtner,

SiAg

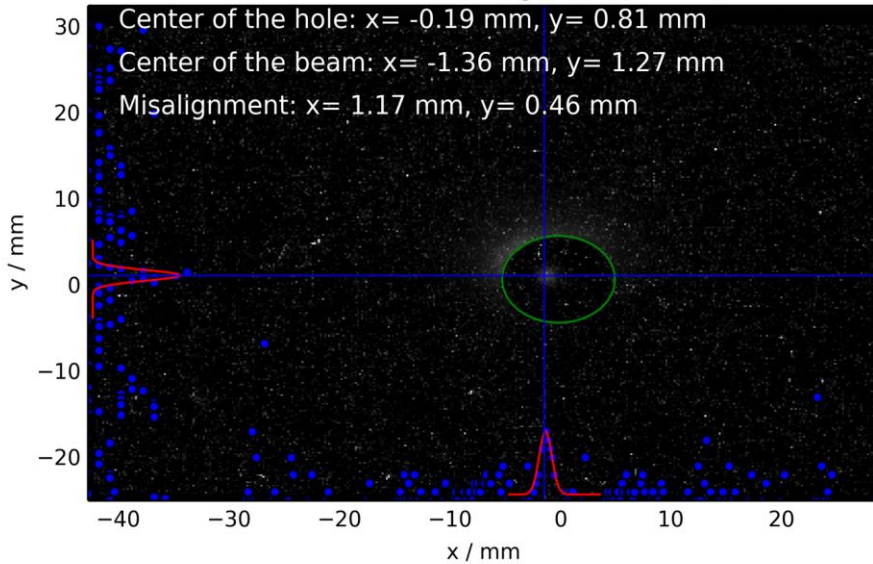


Chromox with a hole

Hole size on the first BTV:  $r = 3$  mm

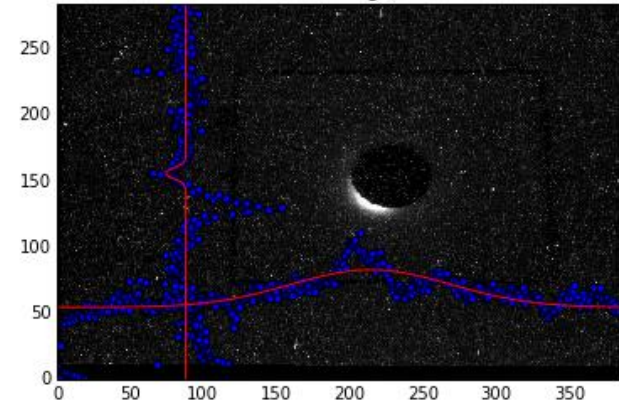
TT41.BTV.412442/Image, Screen Nr.: 3

Center of the hole:  $x = -0.19$  mm,  $y = 0.81$  mm  
Center of the beam:  $x = -1.36$  mm,  $y = 1.27$  mm  
Misalignment:  $x = 1.17$  mm,  $y = 0.46$  mm

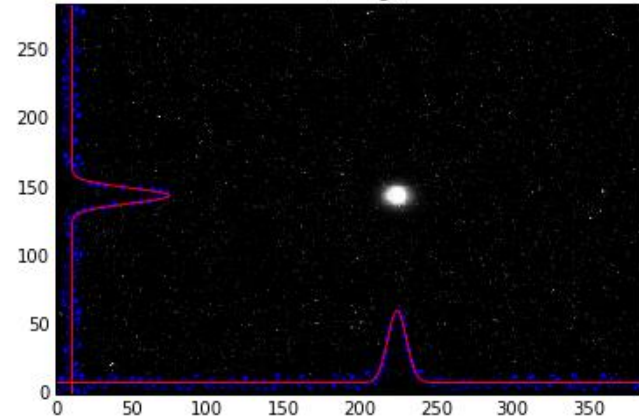


Hole size on the second BTV:  $r = 5$  mm

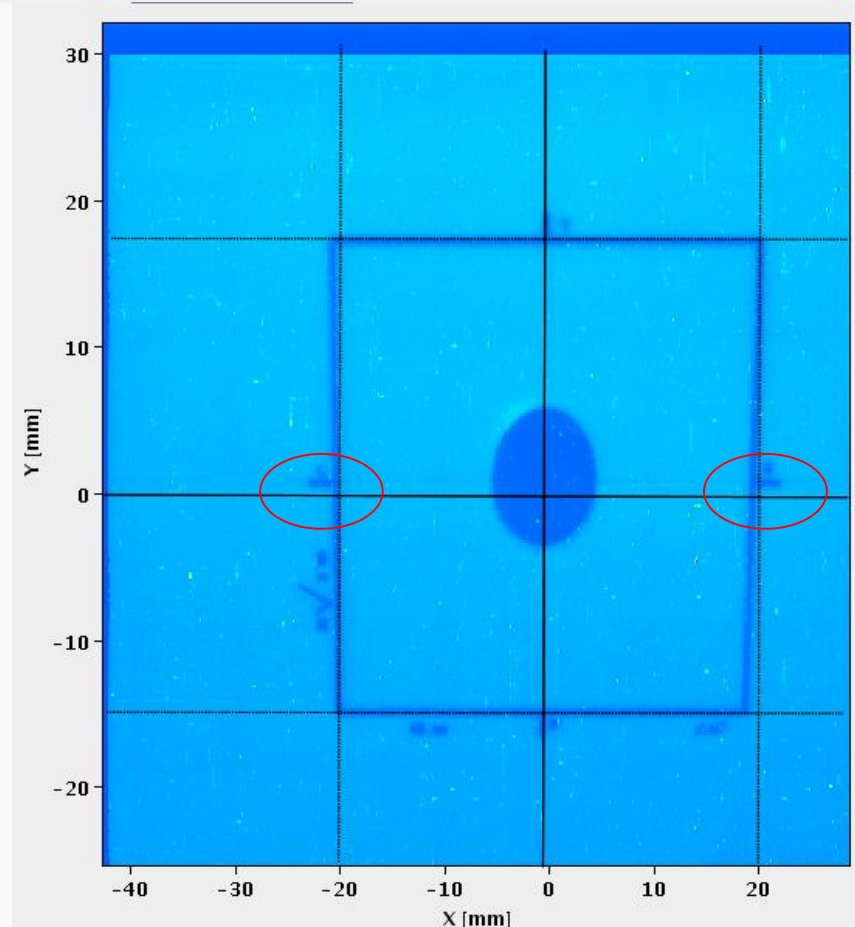
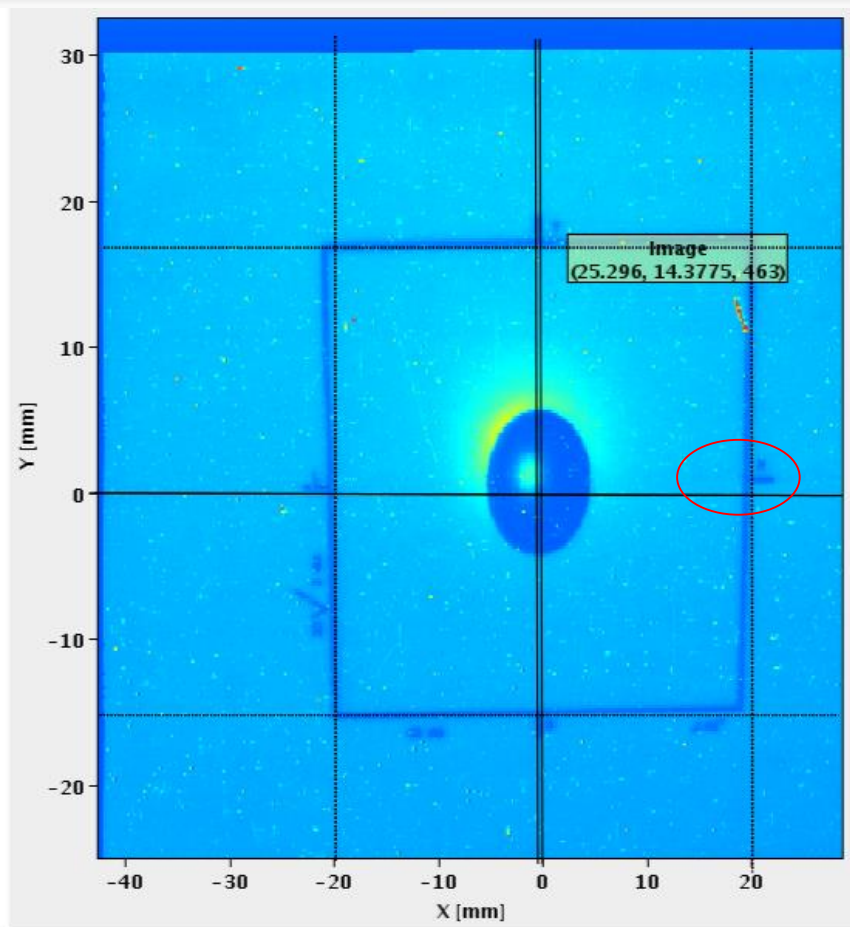
TT41.BTV.412442/Image, Screen Nr.: 1



TT41.BTV.412442/Image, Screen Nr.: 2



# BTV screens of 412442 with respect to the camera



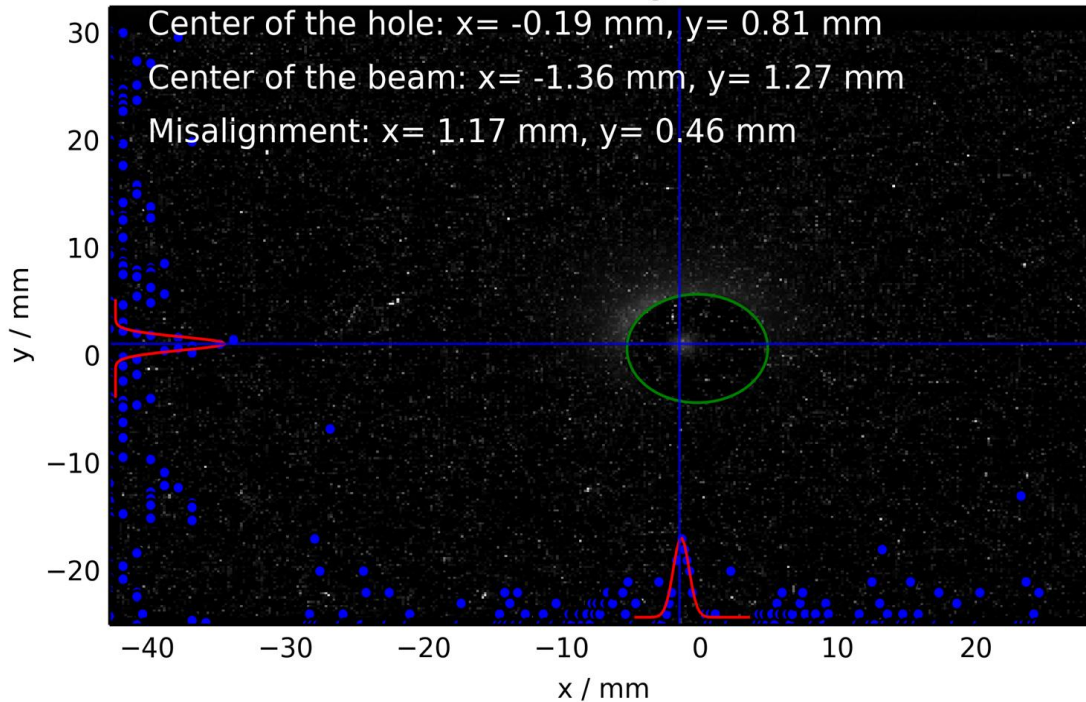
# Imaging of 1 pixel

TT41.BTV.412442/Image, Screen Nr.: 3

Center of the hole:  $x = -0.19$  mm,  $y = 0.81$  mm

Center of the beam:  $x = -1.36$  mm,  $y = 1.27$  mm

Misalignment:  $x = 1.17$  mm,  $y = 0.46$  mm



285 pixel  
Imaged size = 57.5 mm

For BTV 412442:  
Imaged size per  
horizontal pixel: 0.185 mm.  
Imaged size per  
vertical pixel: 0.201 mm.

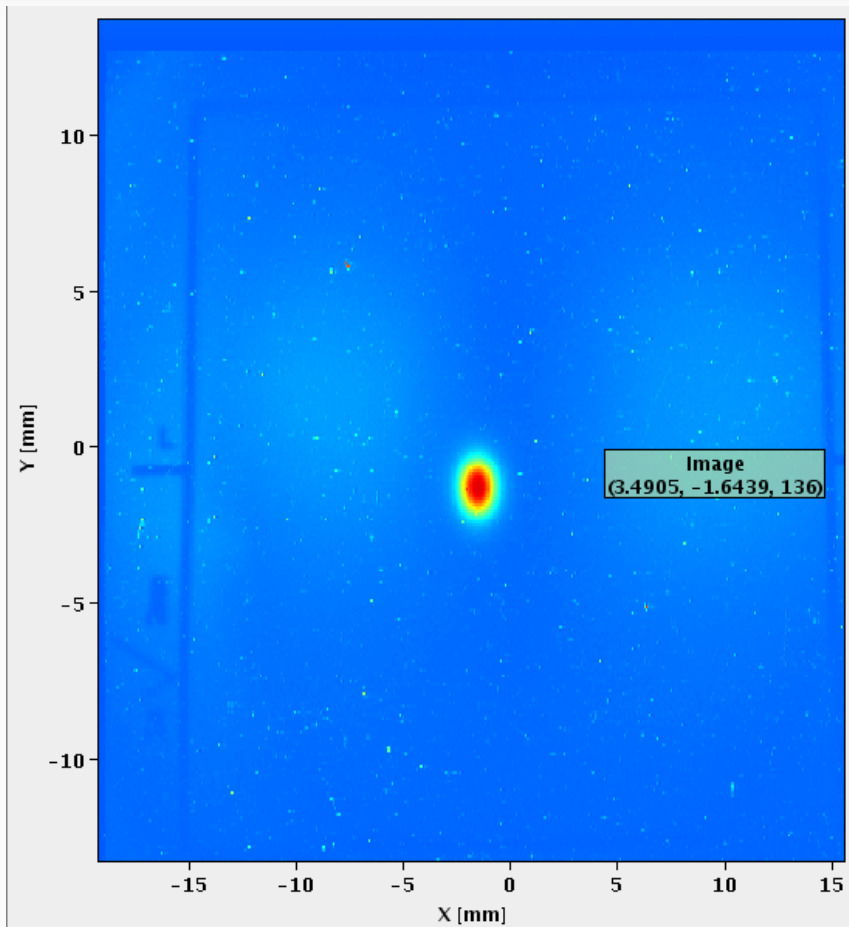
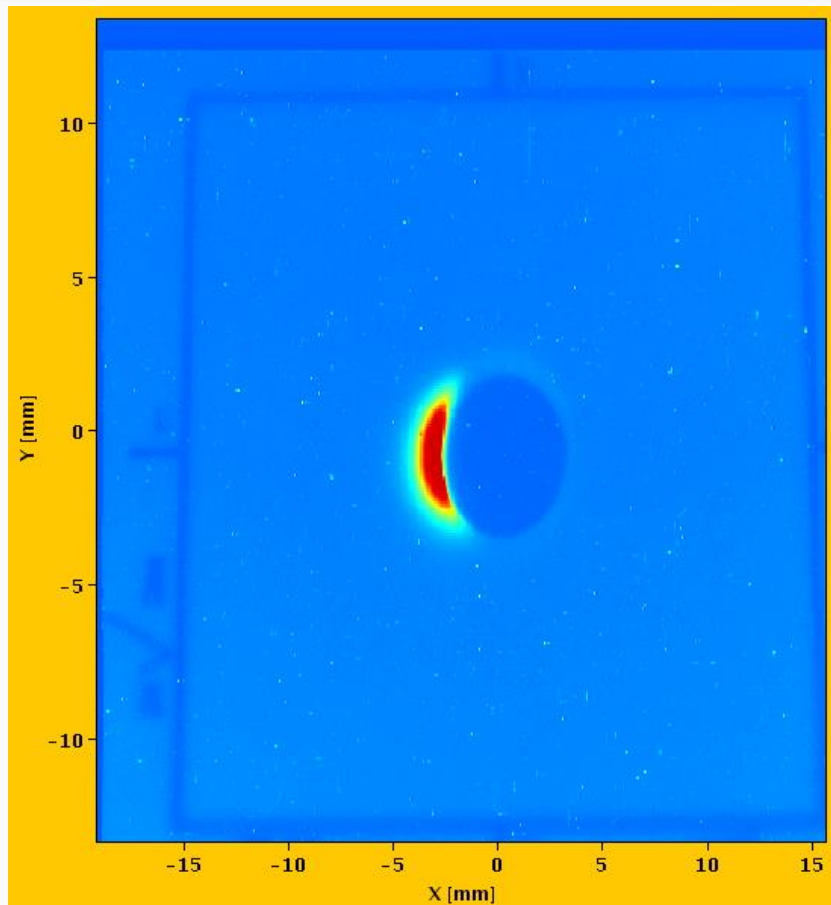
For BTV 412442:  
Imaged size per  
horizontal pixel: 0.090 mm.  
Imaged size per  
vertical pixel: 0.094 mm.



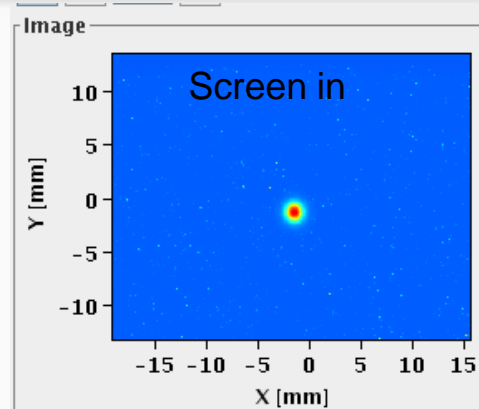
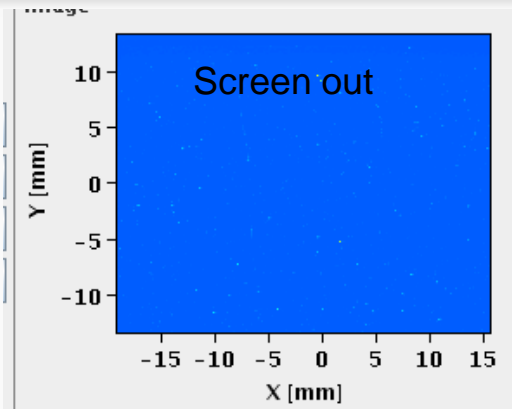
385 pixel, imaged size = 71.42 mm



# BTV screens of 412426 with respect to the camera



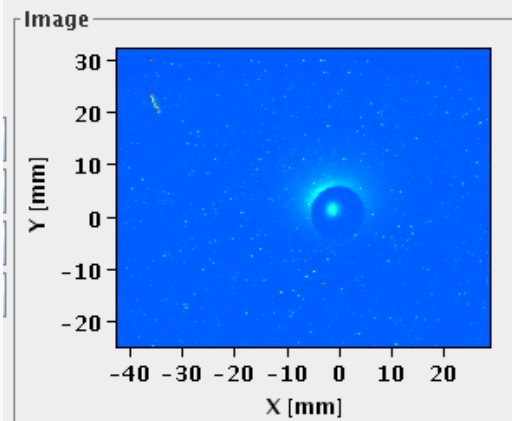
# Does the first imaging screen reduce the imaging quality of the second one?



To be analysed

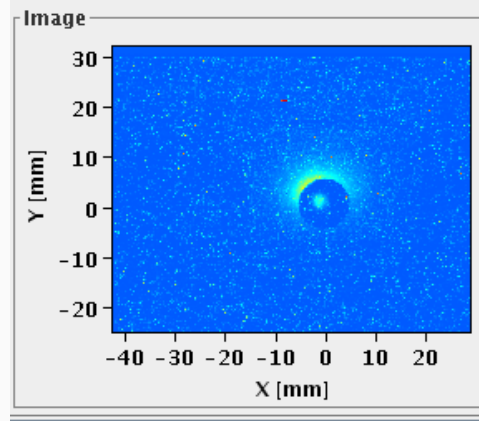
V.412442/Image

1 (1 of 1 acquisitions)



V.412442/Image

1 (1 of 1 acquisitions)



- All BTV's are functional.
- Beam screens performed as expected.
- I think we should plan for realigning the screens after the final proton beam steering (after the installation of the iris).
- Analysis to be done....
  - Calibration of OTR and Scintillation light yield.
  - Determine the minimum proton beam density to give a measurable light response.