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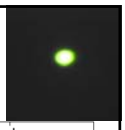
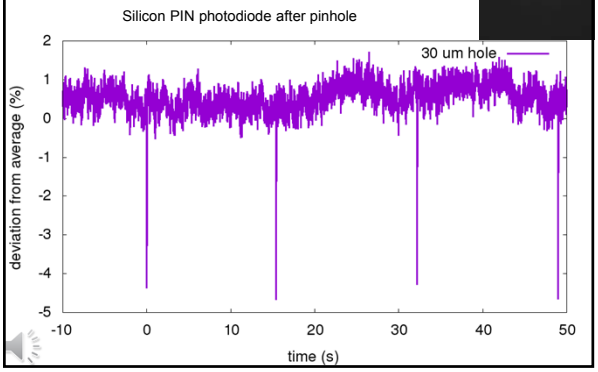
Measured Beam Flicker





Conclusions

- Measure your beam stability through a pinhole!
- No such thing as “shutterless”
- Pile up: problem for RT MX?
- Solution: attenu-wait?

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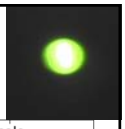

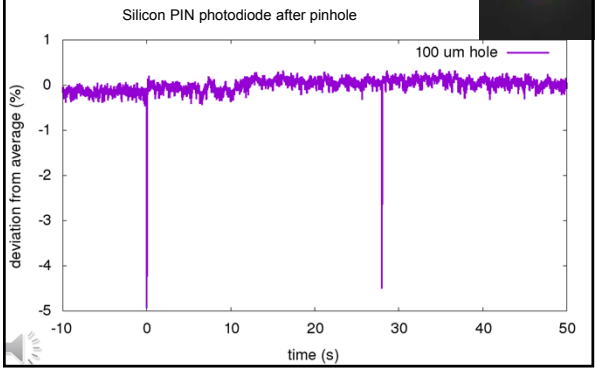

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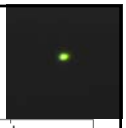

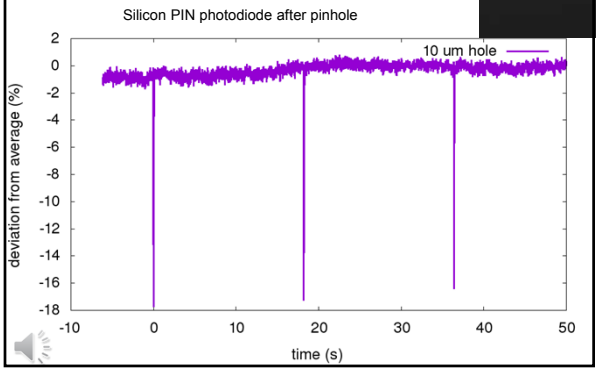

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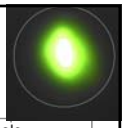
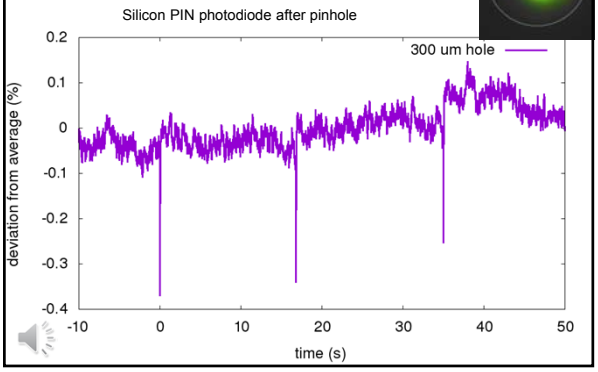
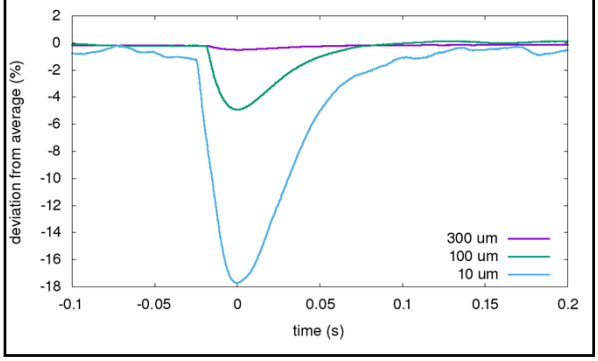
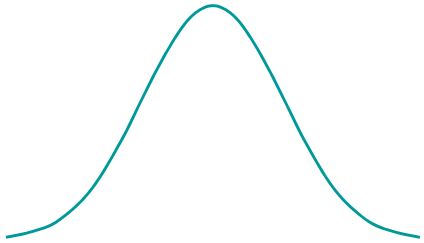




Top-up pulse vs pinhole size

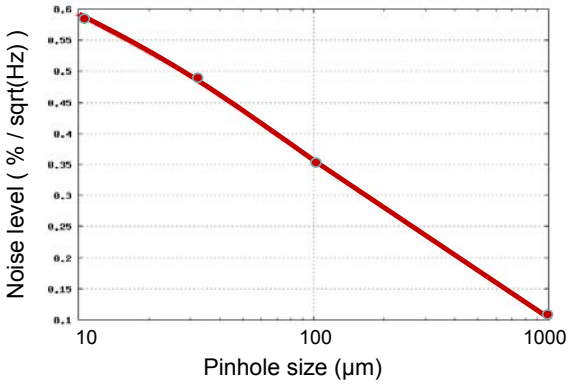


What is the beam doing?

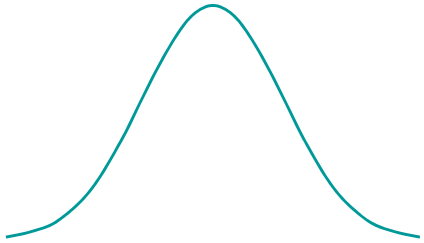


Not this

RMS flicker vs pinhole size

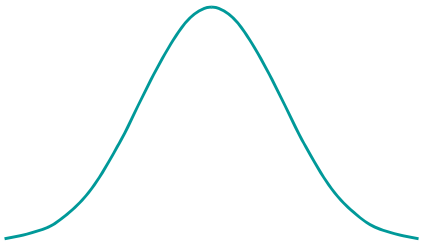


What is the beam doing?



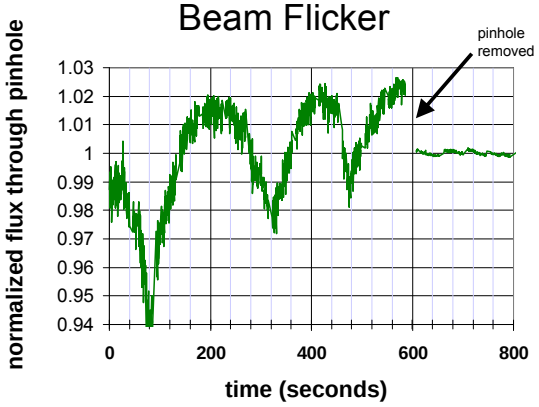
Must be this?

What is the beam doing?



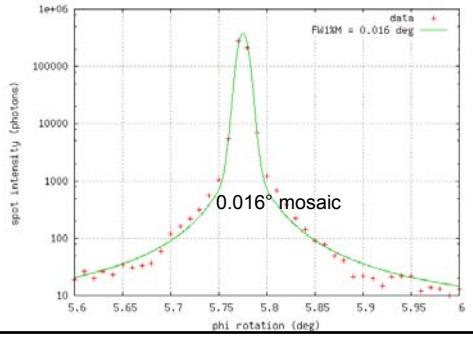
Not this

Beam Flicker



This is an Aperture!

Pilatus pile-up for RT MX? same photons, different speeds



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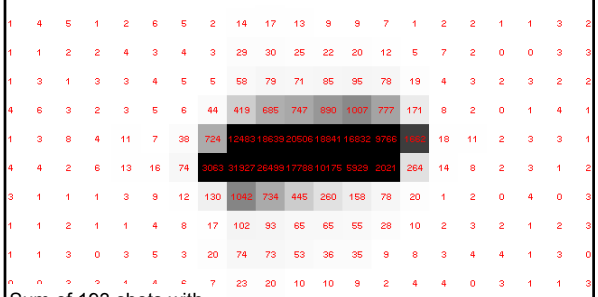
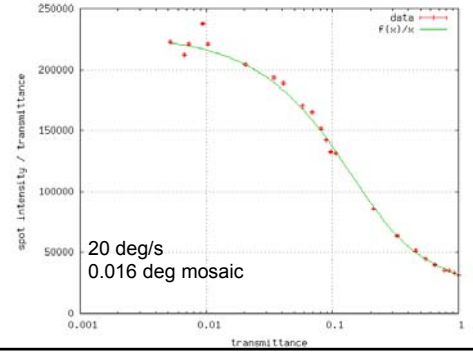


Sum of 193 shots with
193-fold attenuation

Pilatus pile-up for RT MX? same photons, different speeds



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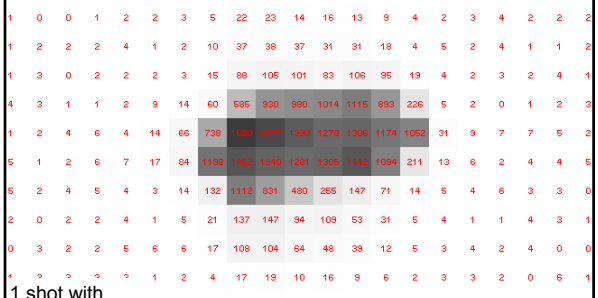
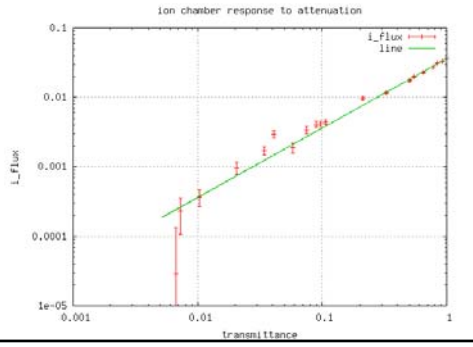
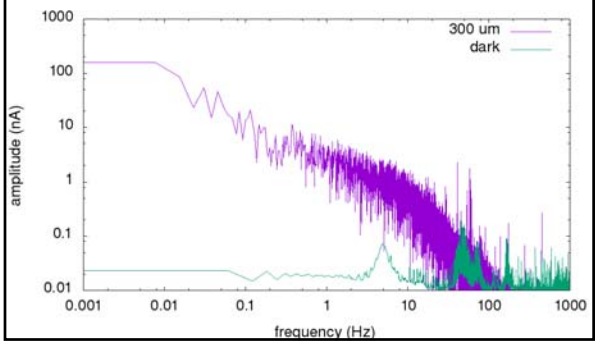


1 shot with
no attenuation

Pilatus pile-up for RT MX? same photons, different speeds



Flicker noise power spectrum



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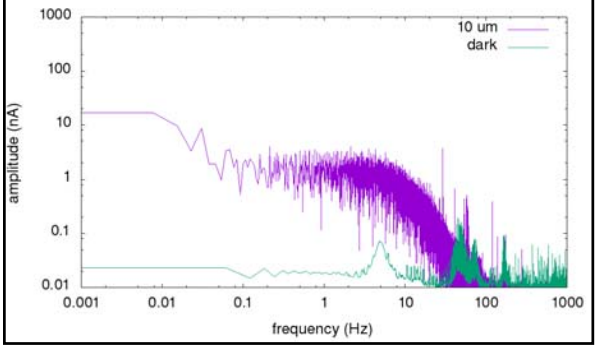

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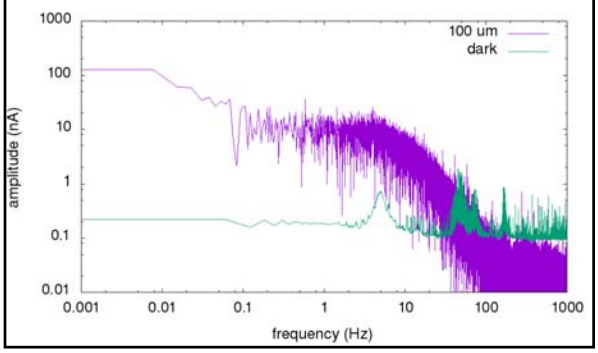
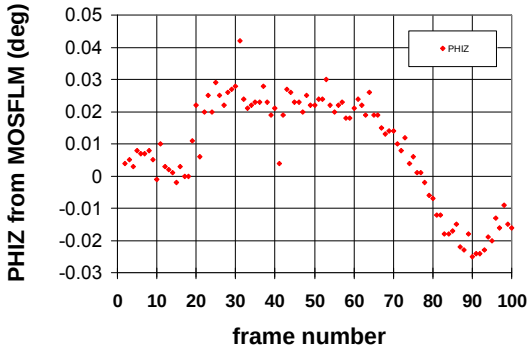


Shutter Jitter



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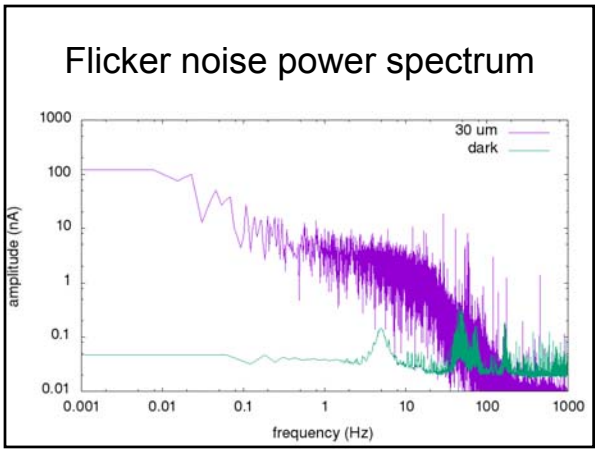

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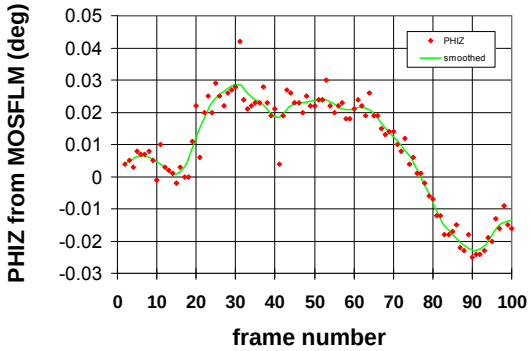

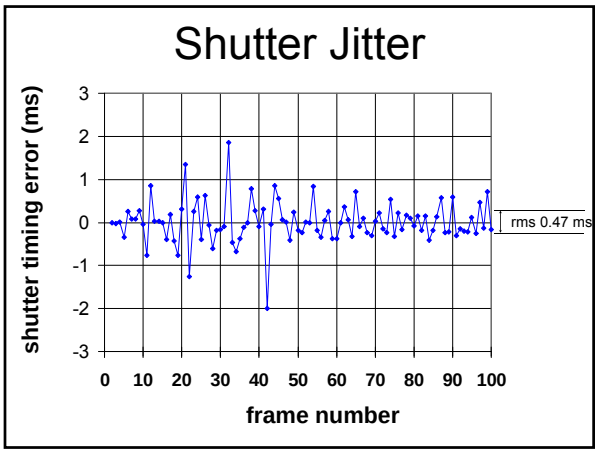

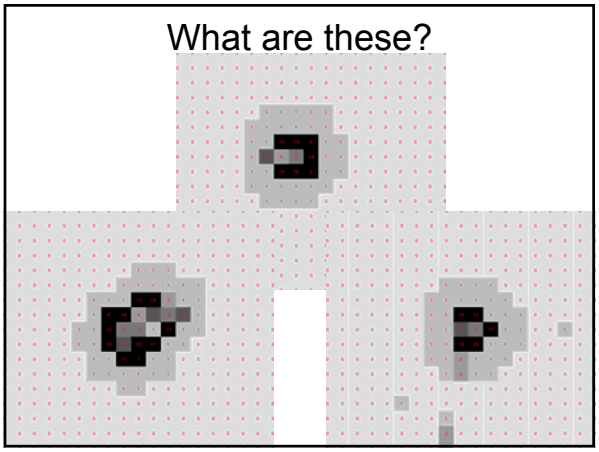

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