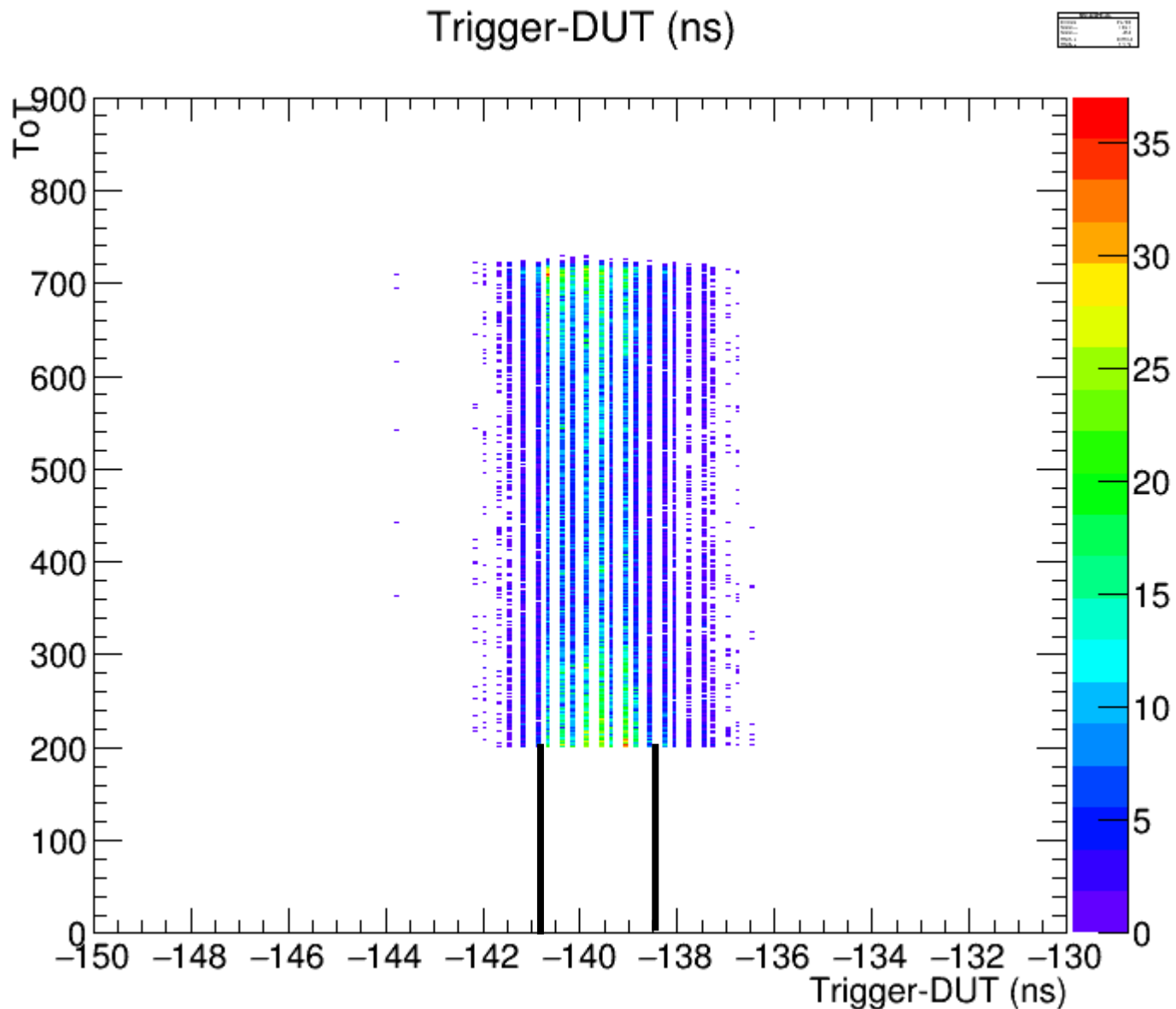
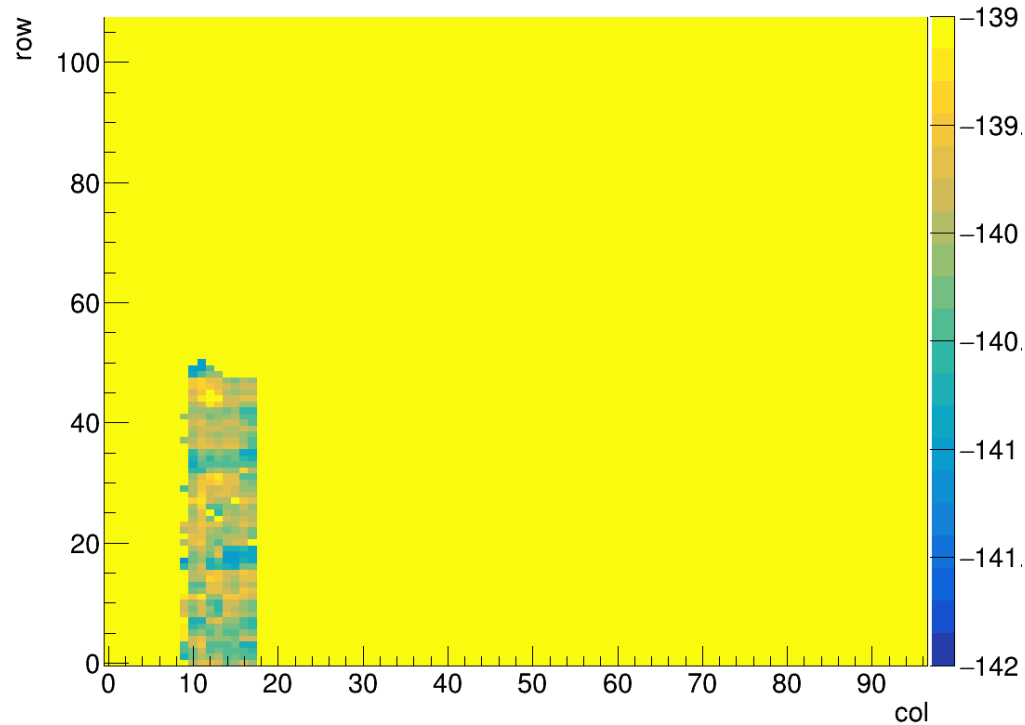


Laser – Timing of pixel matrix



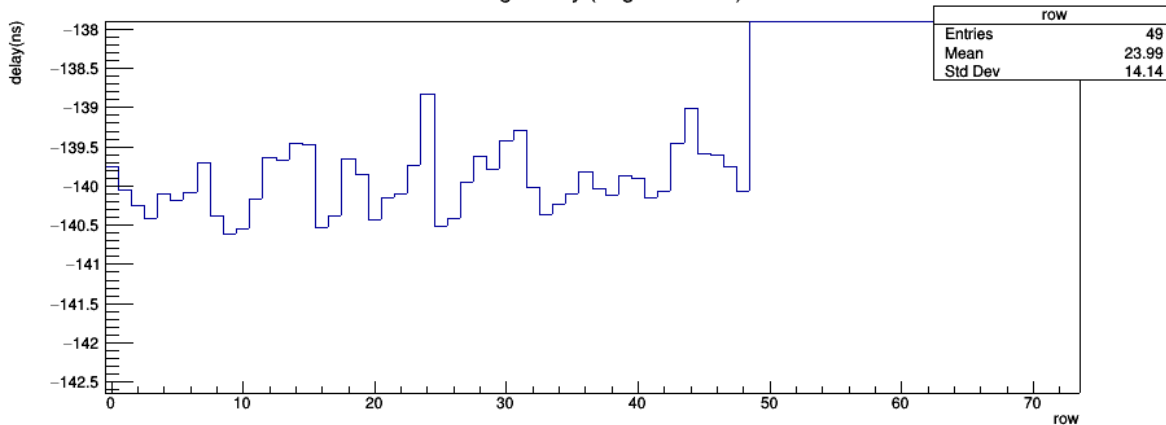
Laser – Timing of pixel matrix

Trigger-DUT (ns)

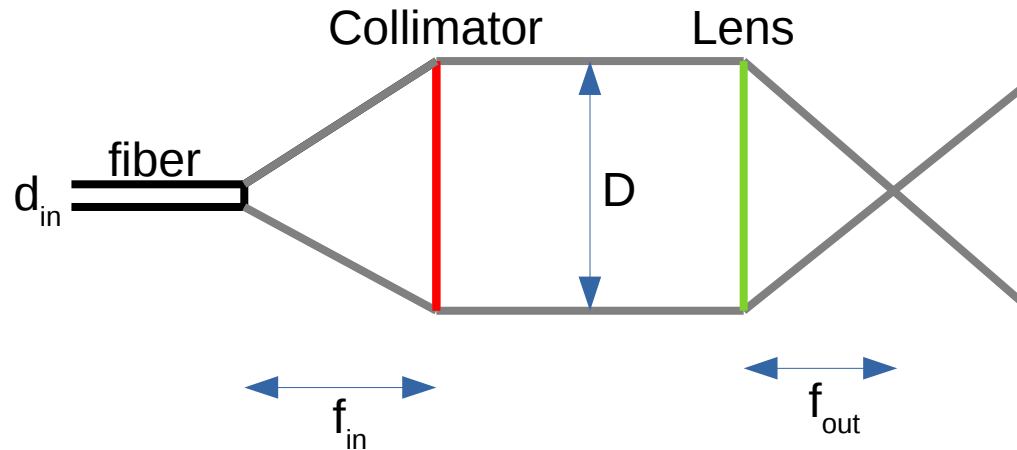


Problem:
SPIDR trigger counter resets
when a new data file is made
(after 1024mb of data)

Average delay (TrigTime-DUT)



Quest for smaller spot size



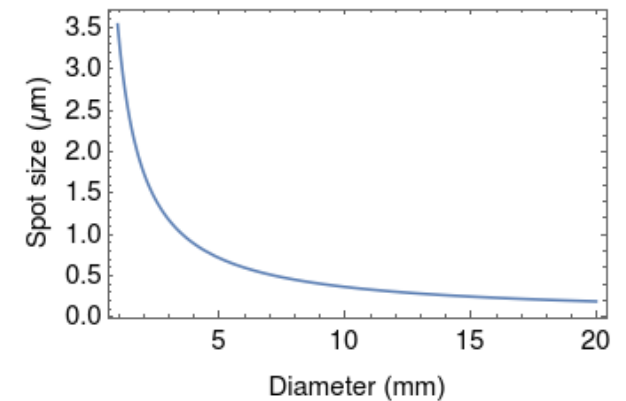
Using imaging formula to determine the spot size:

$$d_{out} = d_{in} * f_{out} / f_{in}$$

But this is also limited by diffraction by:

$$D_{min} = 4 \lambda f_{out} / \pi D$$

Size of beam is very important →



Quest for smaller spot size

Spot size of $1.4\mu\text{m}$ theoretically possible
Although with very very small working distance

For 270 euros?