

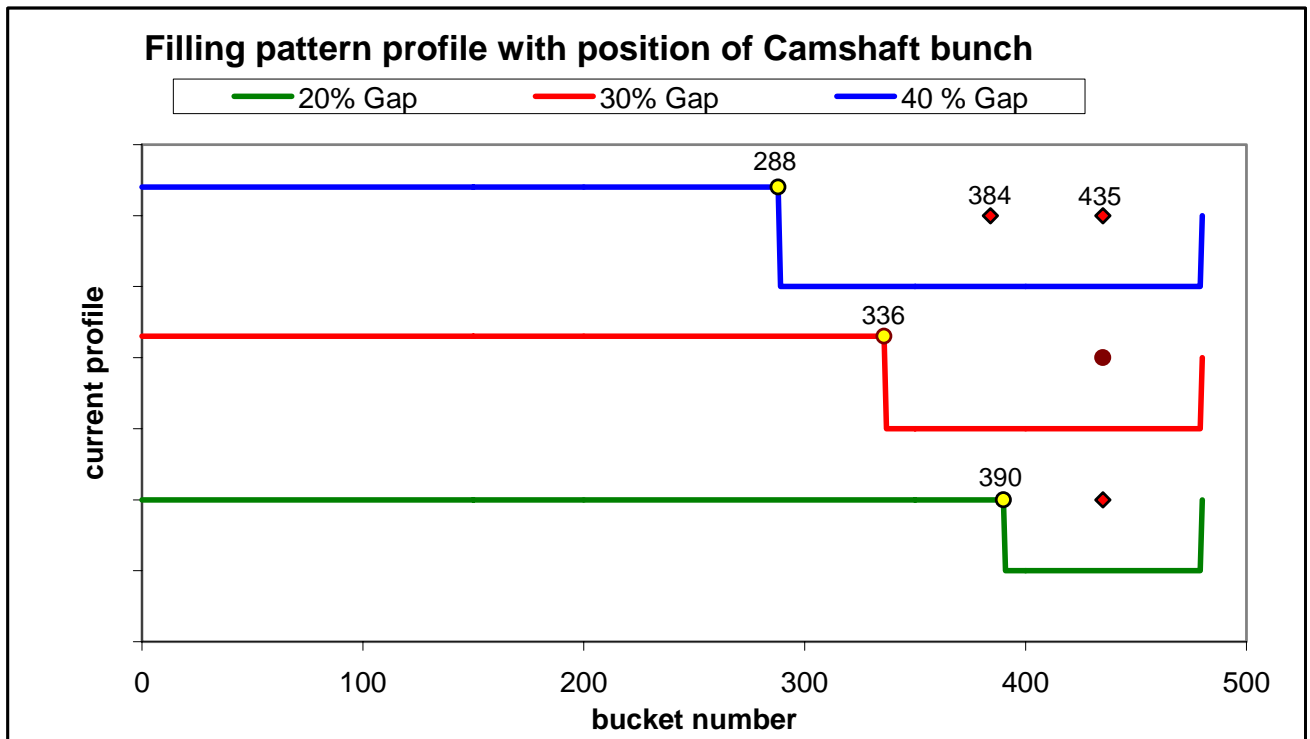
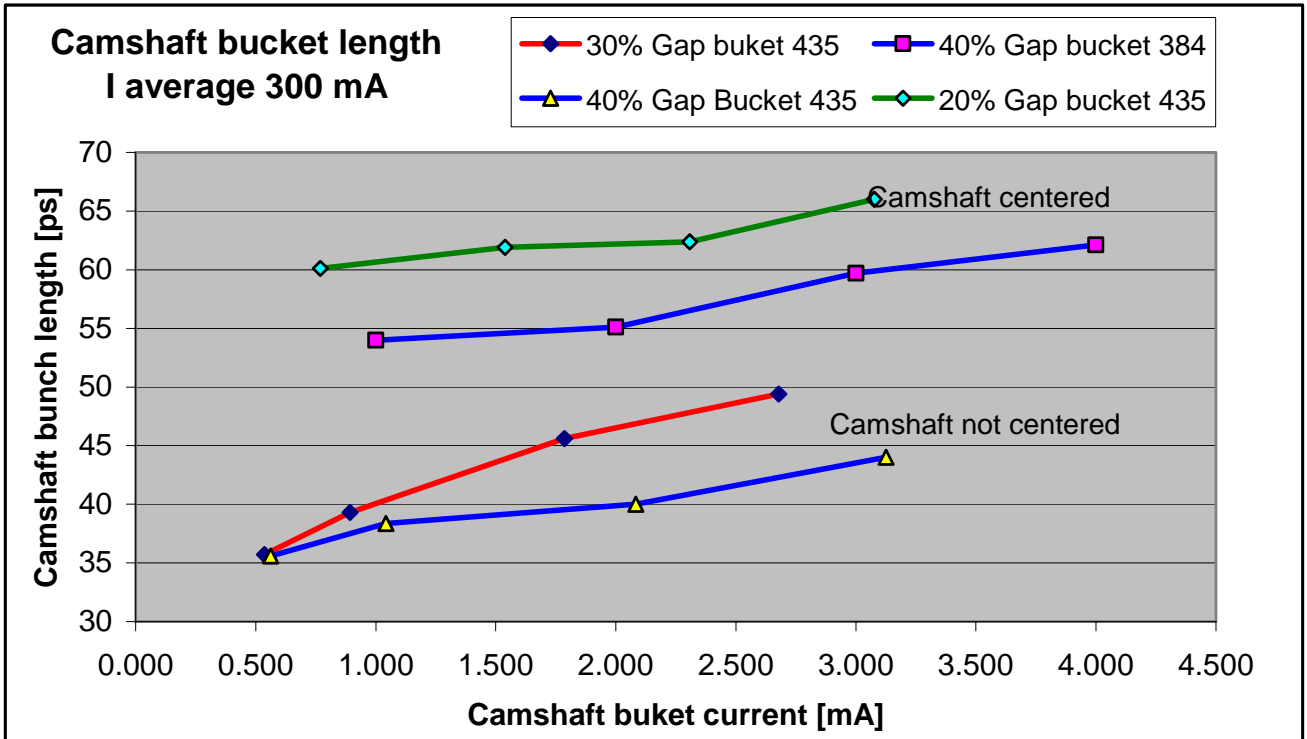
Measurements of transient Effects  
on Bunch Elongation  
with Super-3HC at SLS

On behalf of Marco Pedrozzi

8<sup>th</sup> ESLS RF meeting, Daresbury, 29<sup>th</sup>-30<sup>th</sup> September 2004

# Summary Camshaft mode bunch length measurements.

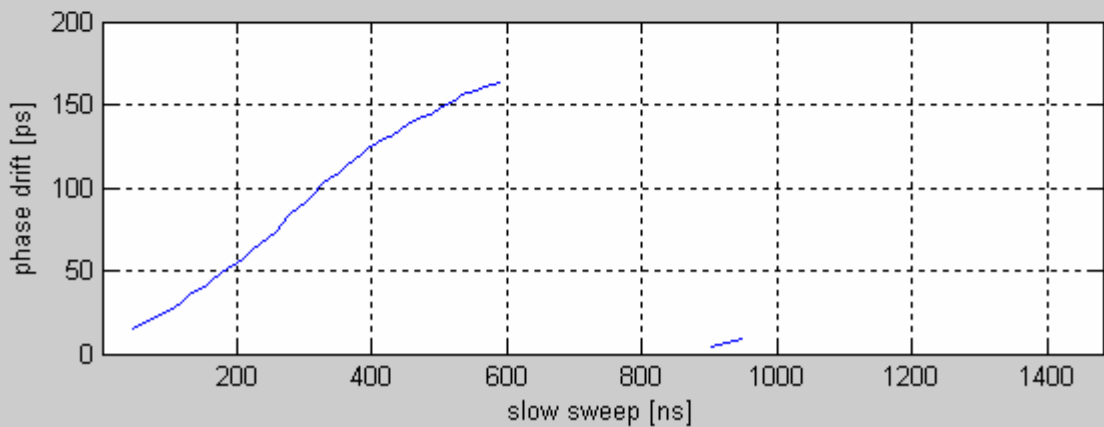
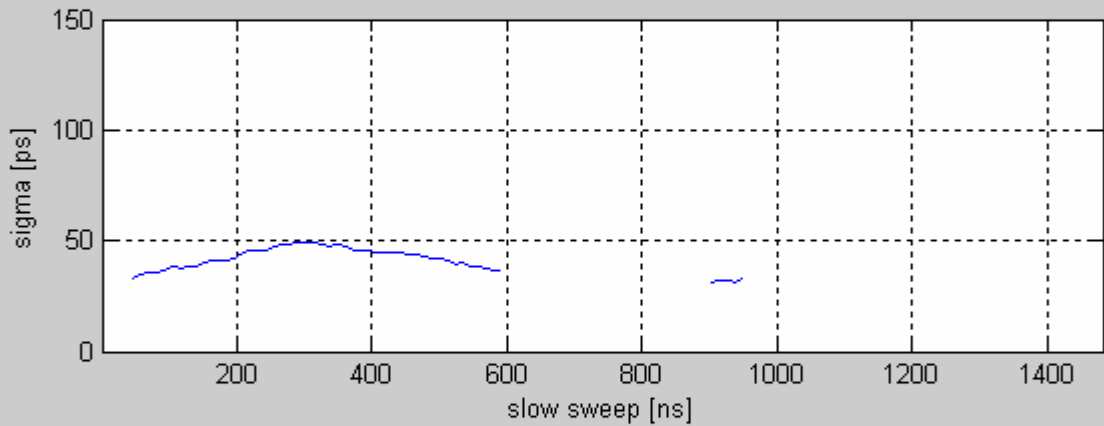
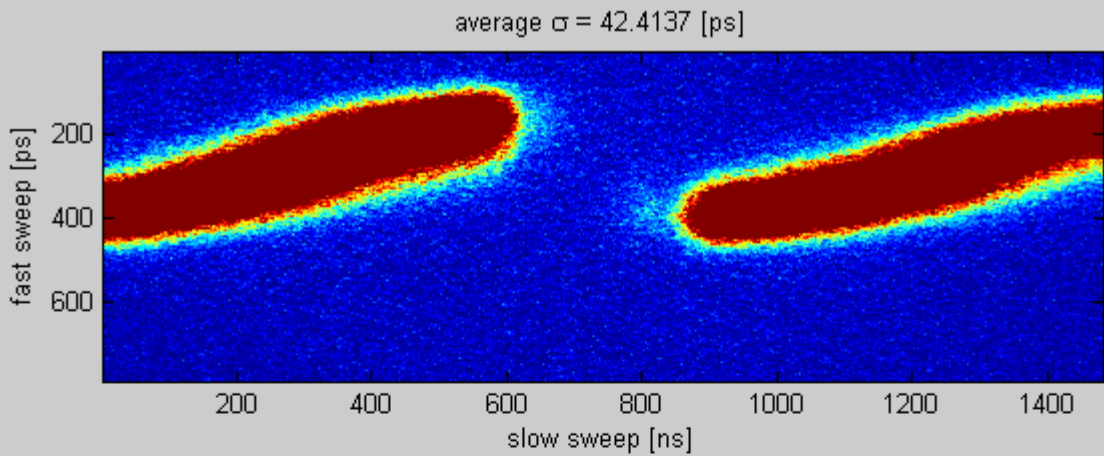
I average = 300 mA for all filling patterns



30% gap – Camshaft current 0.536mA

Camshaft bunch 435 - Start/end gap 336/480

(bunch 0 and 480 are the same)

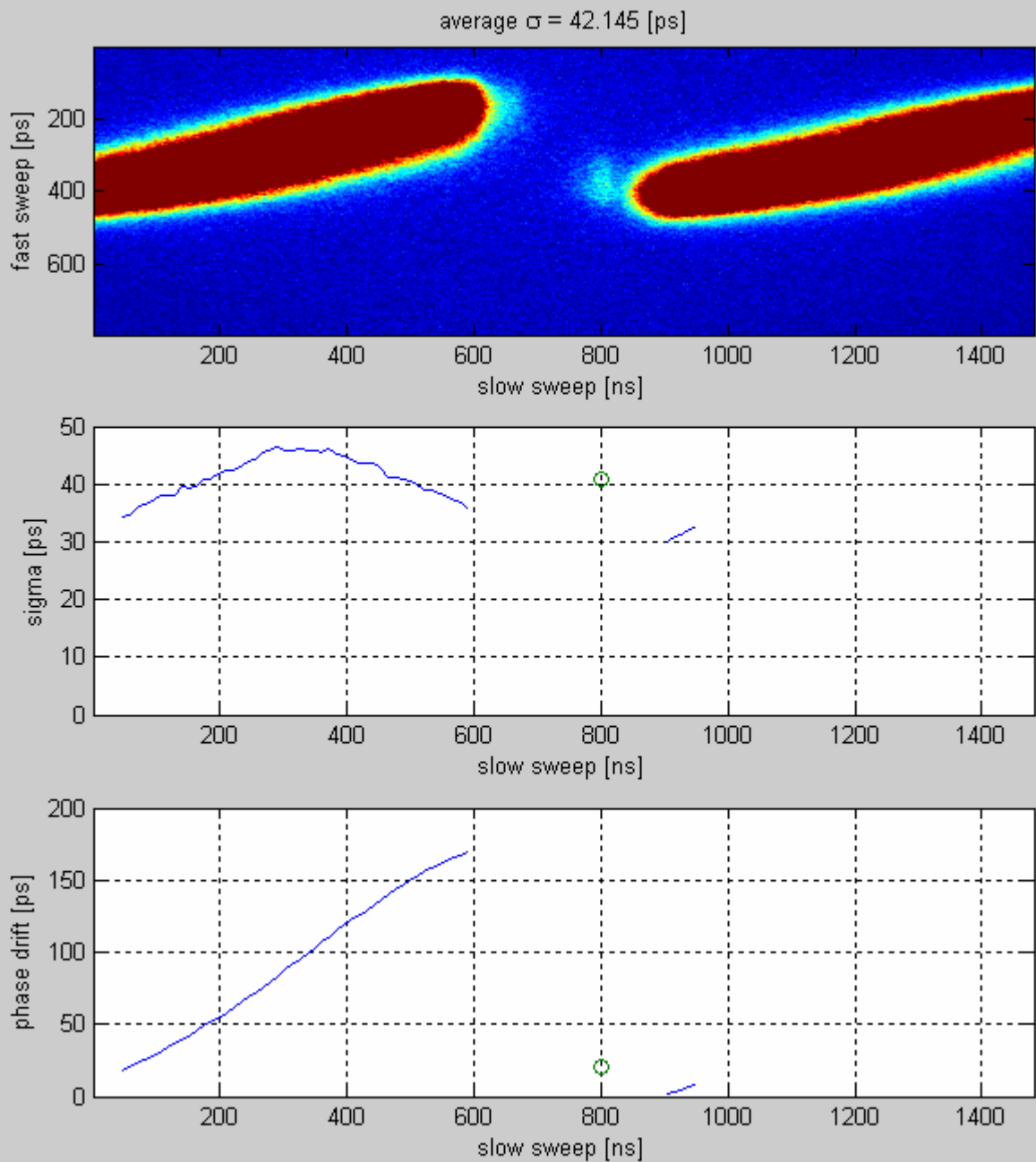


file name: 50ps\_100ns\_141buckets\_1.bmp

30% gap – Camshaft current 0.893mA

Camshaft bunch 435 - Start/end gap 336/480

(bunch 0 and 480 are the same)

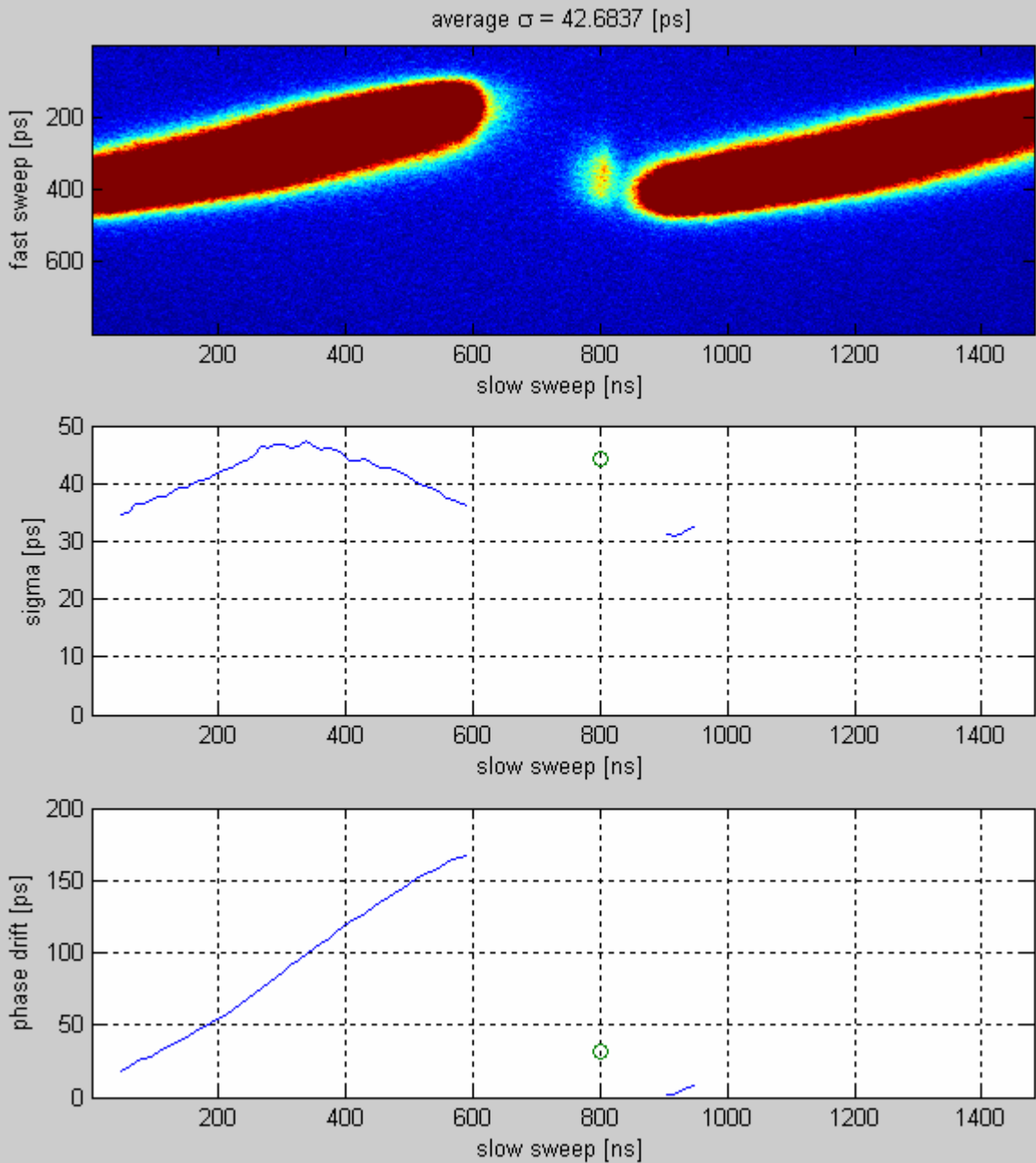


file name: 50ps\_100ns\_141buckets\_2.bmp

30% gap – Camshaft current 1.78 mA

Camshaft bunch 435 - Start/end gap 336/480

(bunch 0 and 480 are the same)

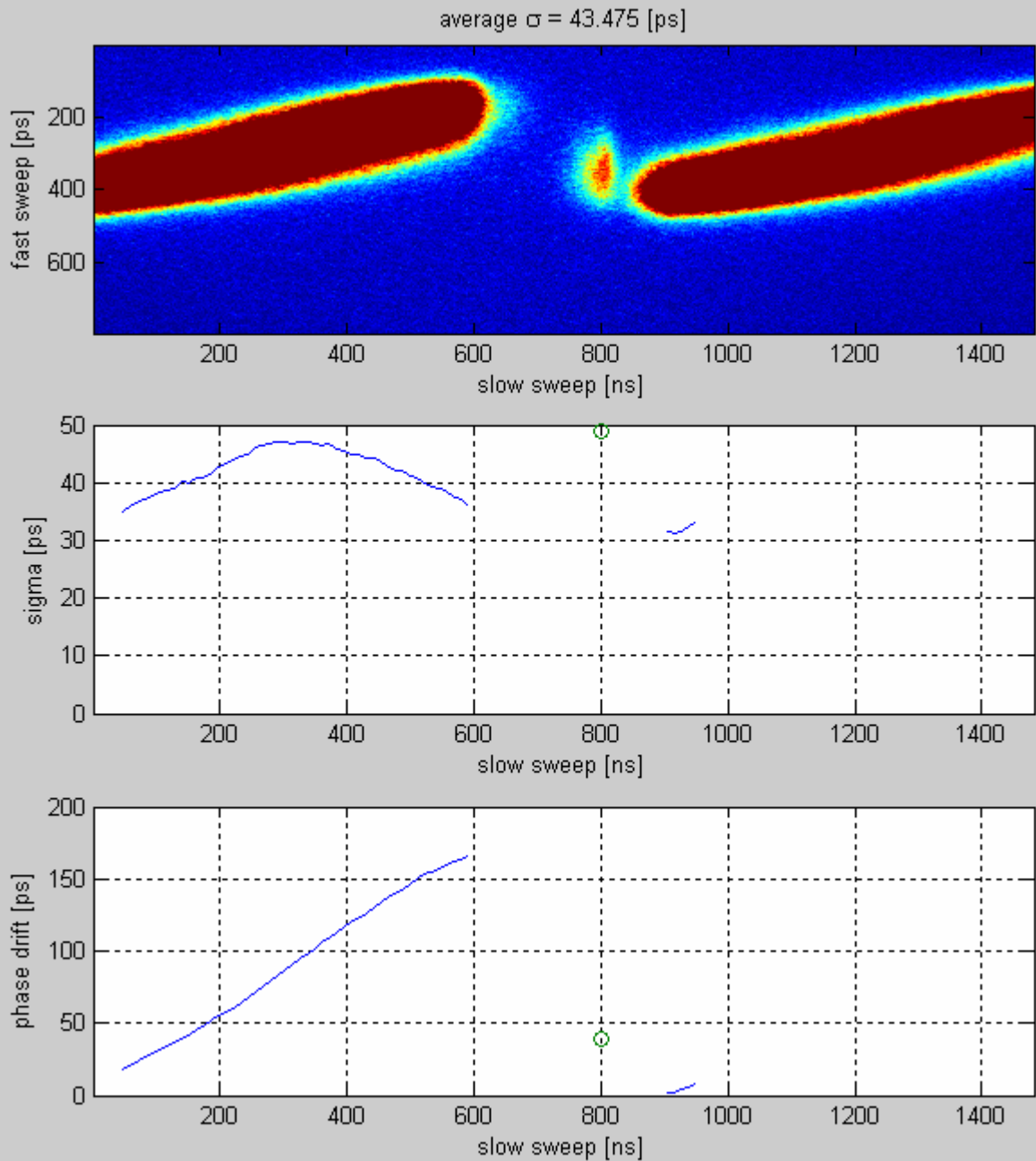


file name: 50ps\_100ns\_141buckets\_acc5\_3.bmp

30% gap – Camshaft current 2.68 mA

Camshaft bunch 435 - Start/end gap 336/480

(bunch 0 and 480 are the same)

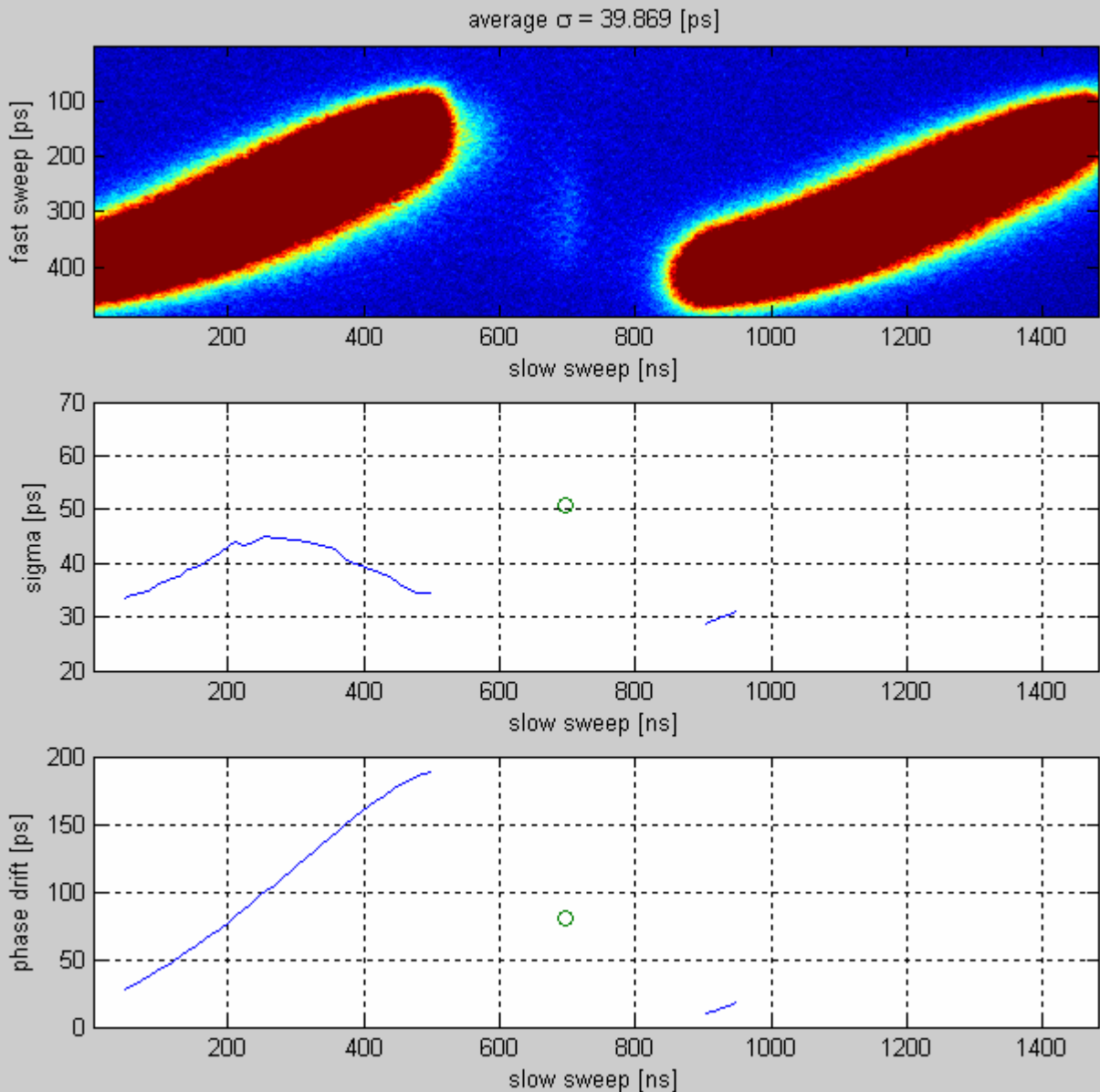


file name: 50ps\_100ns\_141buckets\_acc5\_4.bmp

40% gap – Camshaft current 0.56mA

Camshaft bunch 384 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

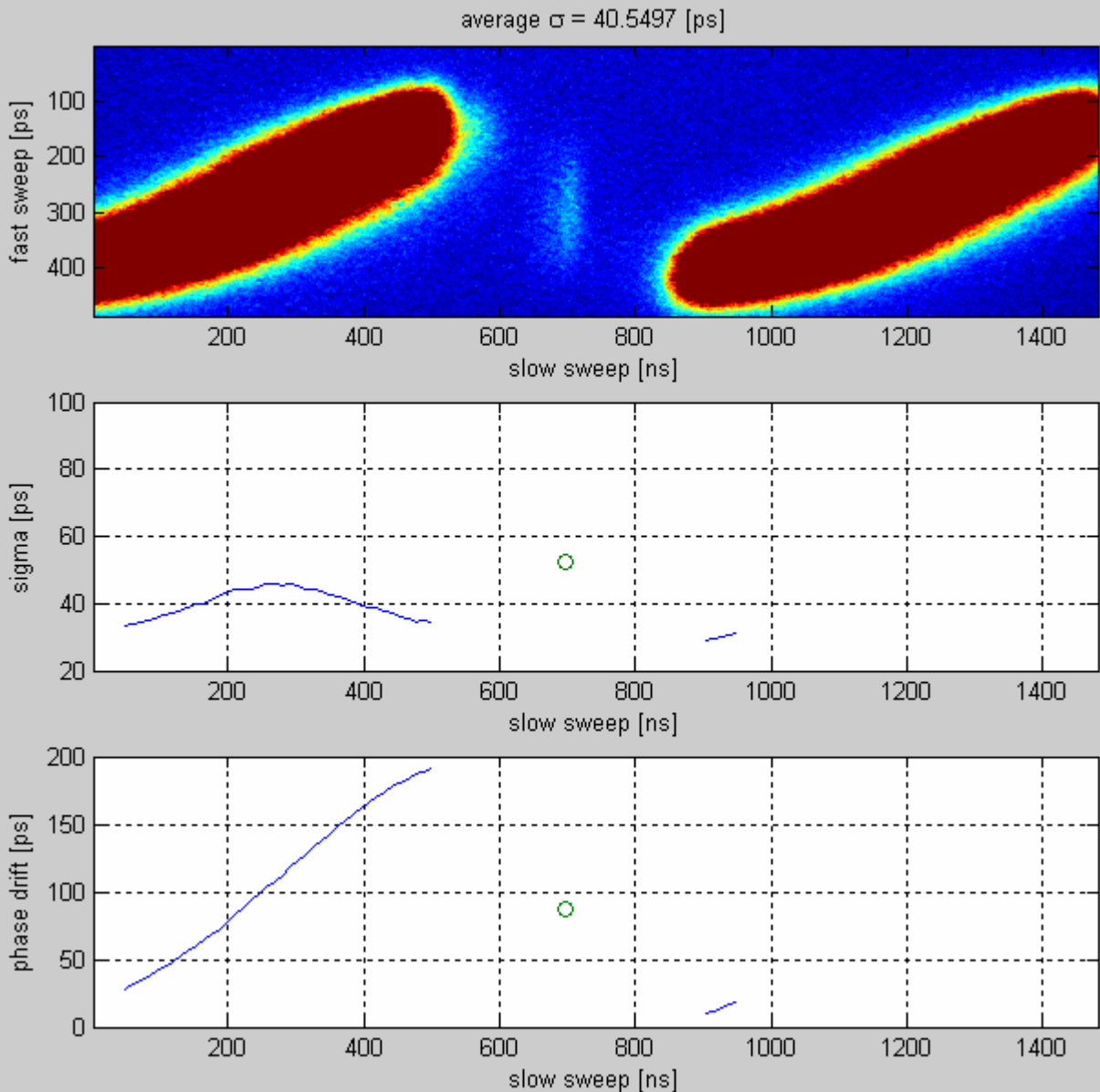


file name: 50ps\_\_100ns\_\_192buckets\_\_acc5\_\_1.bmp

40% gap – Camshaft current 1.04mA

Camshaft bunch 384 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)



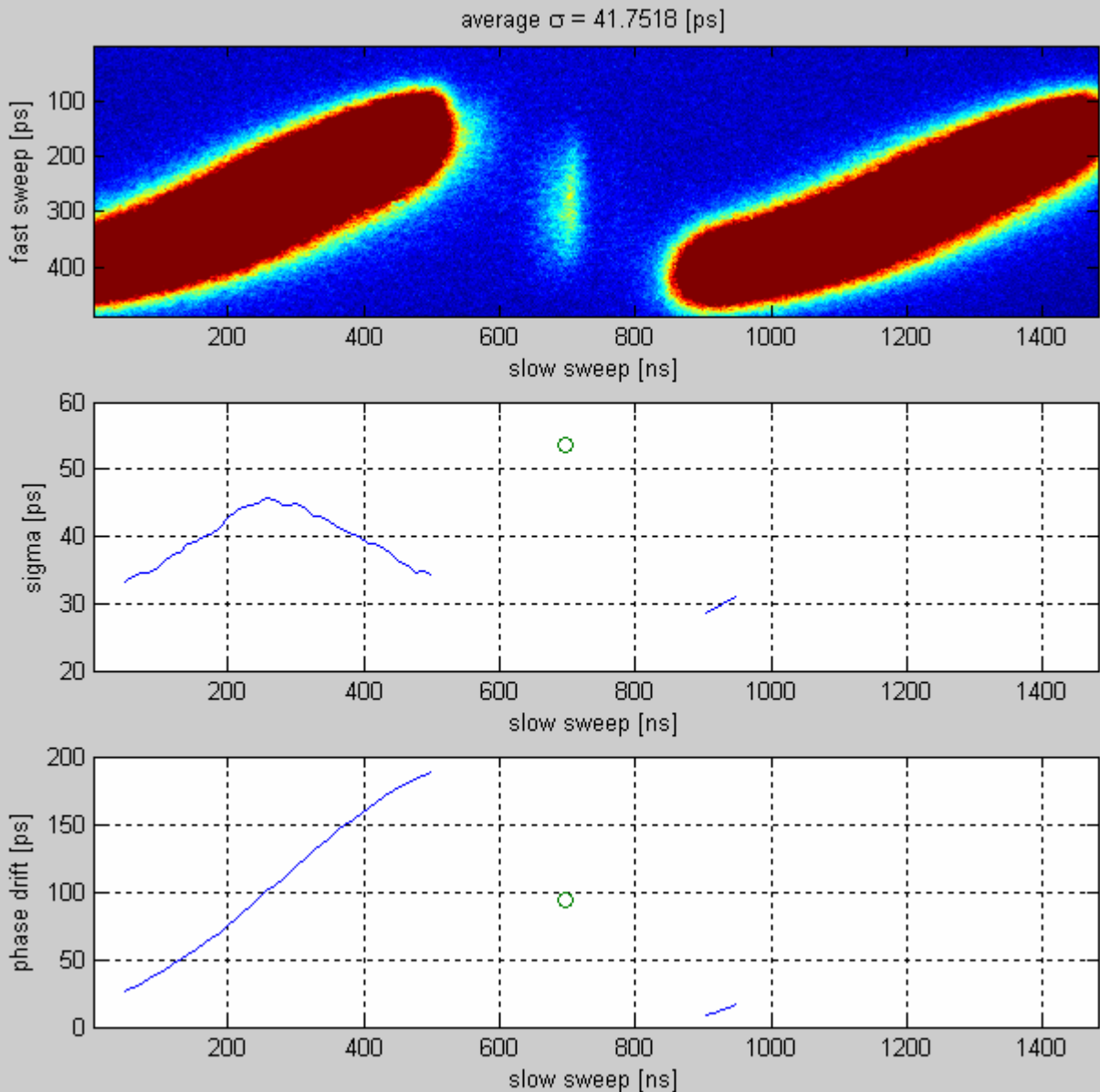
file name: 50ps\_\_100ns\_\_192buckets\_\_acc5\_\_2.bmp



40% gap – Camshaft current 2.08mA

Camshaft bunch 384 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

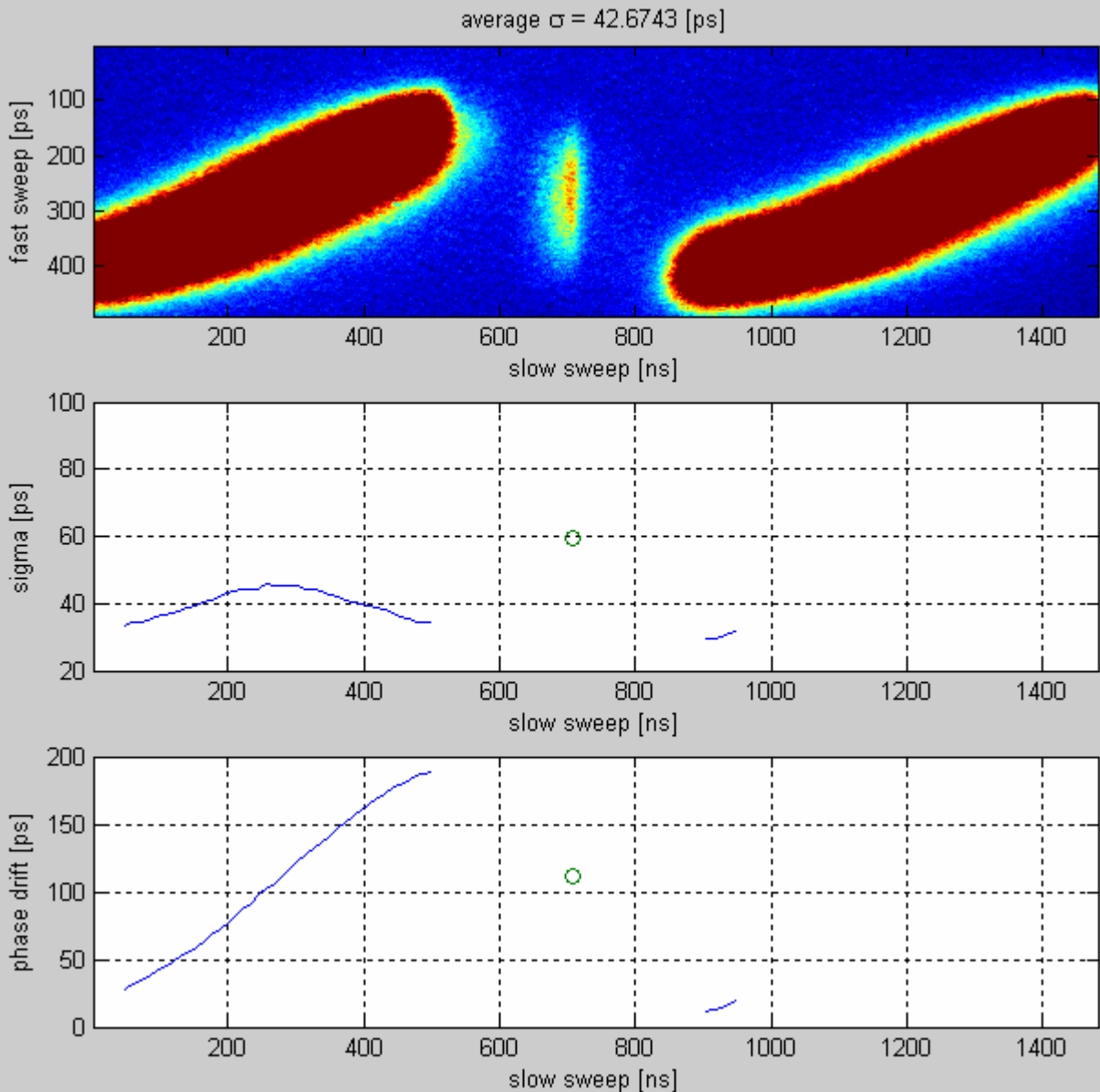


file name: 50ps\_\_100ns\_\_192buckets\_\_acc5\_\_3.bmp

40% gap – Camshaft current 3.12mA

Camshaft bunch 384 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

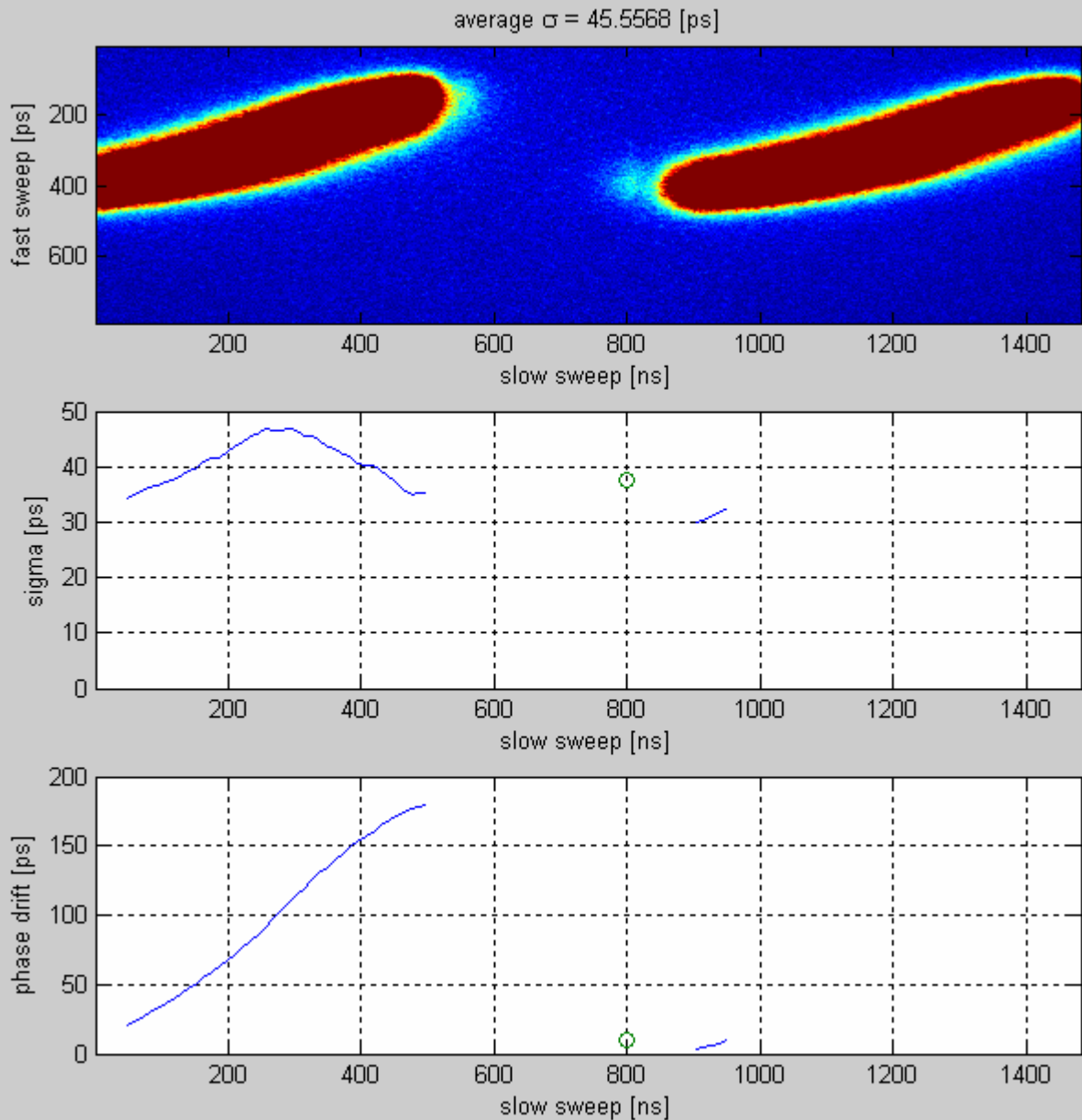


file name: 50ps\_\_100ns\_\_192buckets\_\_acc5\_\_4.bmp

40% gap – Camshaft current 0.56mA

Camshaft bunch 435 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

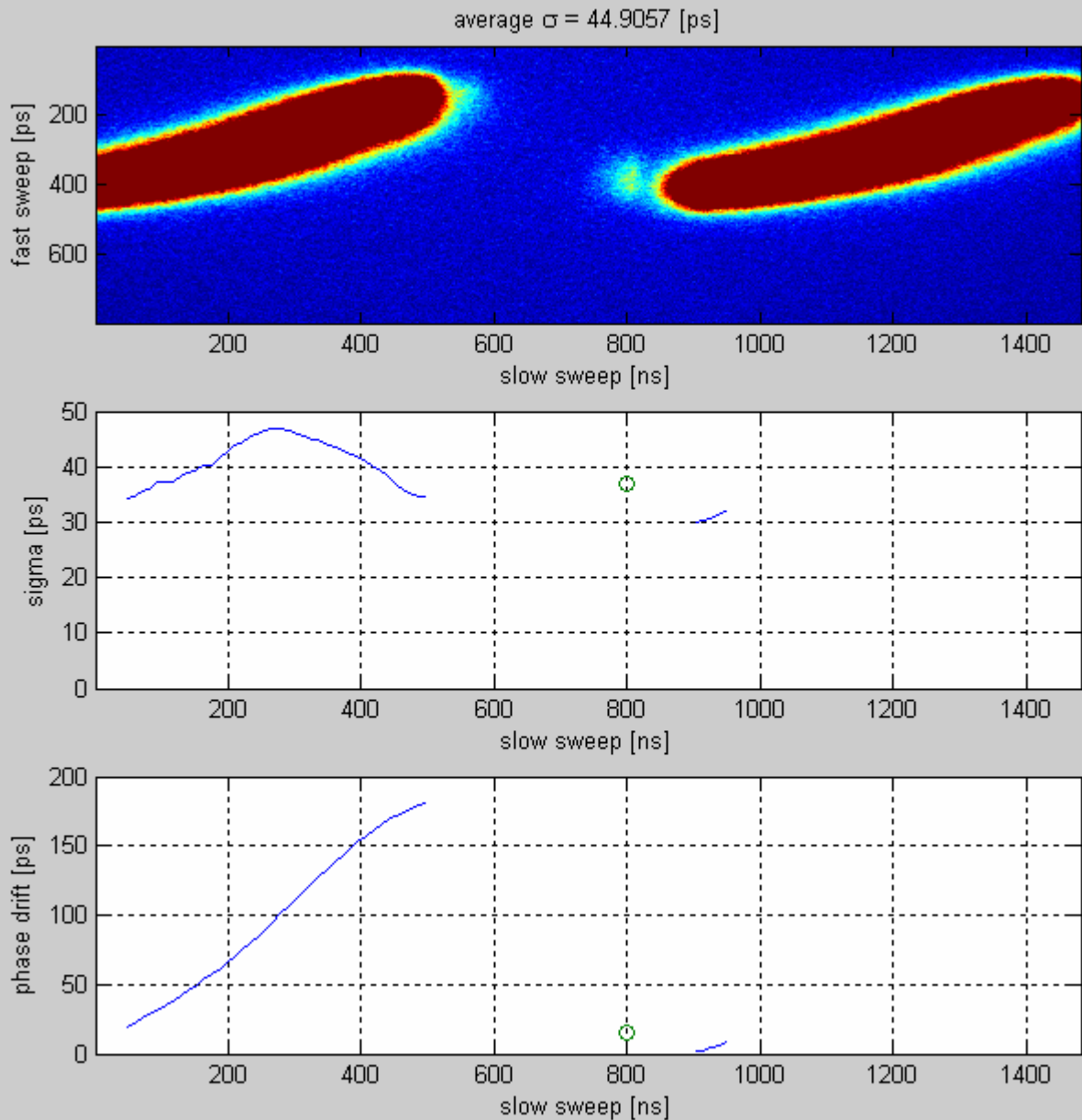


file name: 50ps\_100ns\_192buckets\_acc5\_1a.bmp

40% gap – Camshaft current 1.042mA

Camshaft bunch 435 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

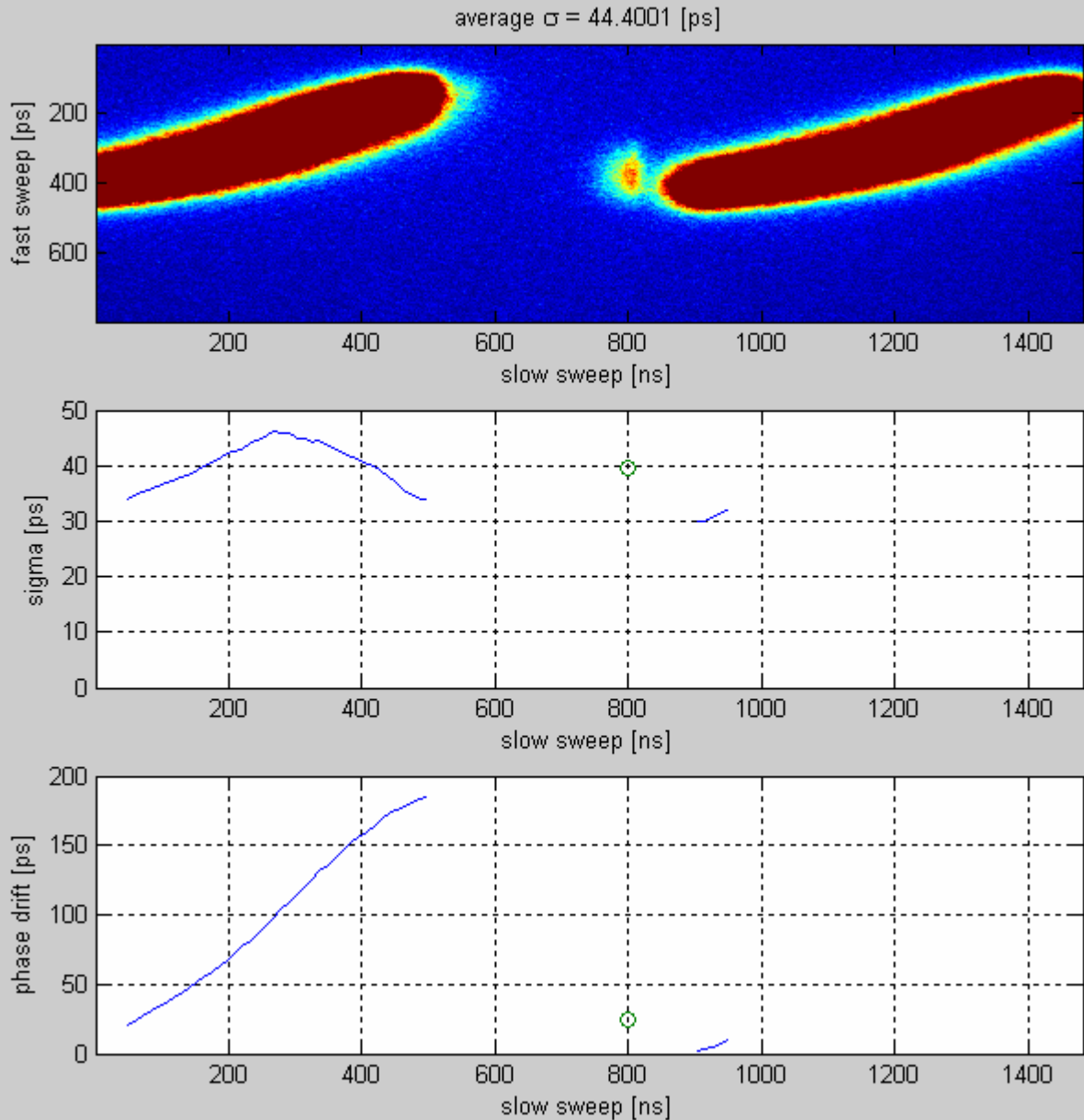


file name: 50ps\_100ns\_192buckets\_acc5\_2a.bmp

40% gap – Camshaft current 2.08mA

Camshaft bunch 435 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

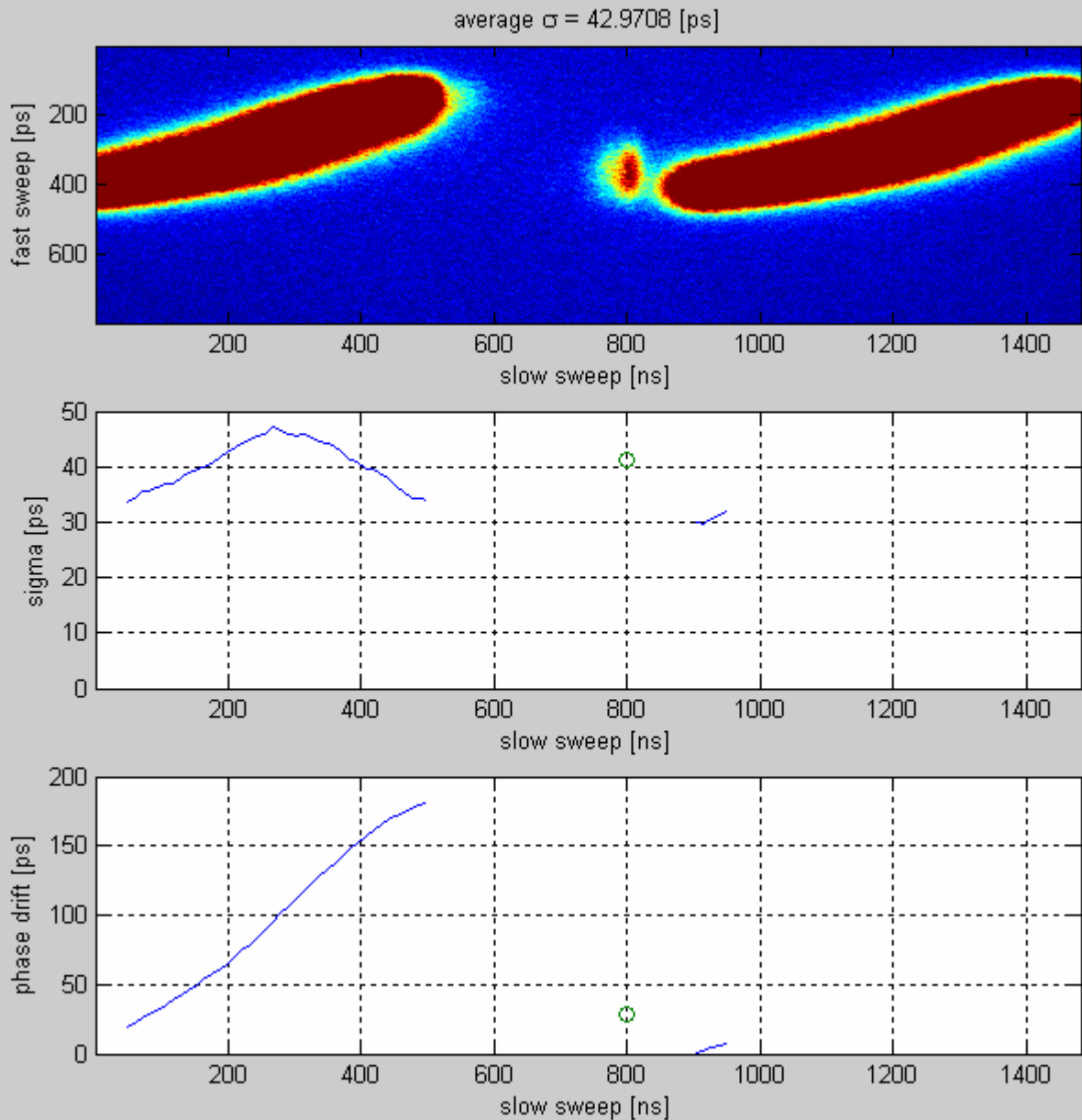


file name: 50ps\_100ns\_192buckets\_acc5\_3a.bmp

40% gap – Camshaft current 3.12mA

Camshaft bunch 435 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)

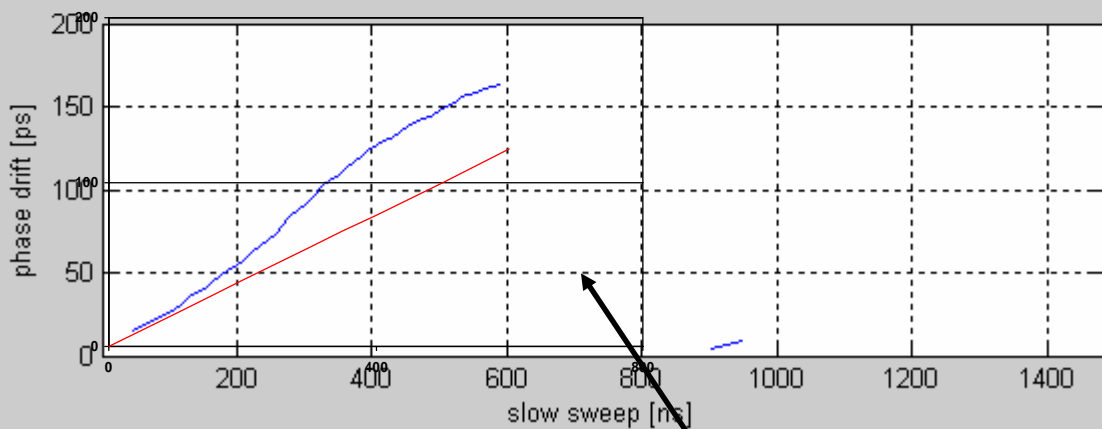
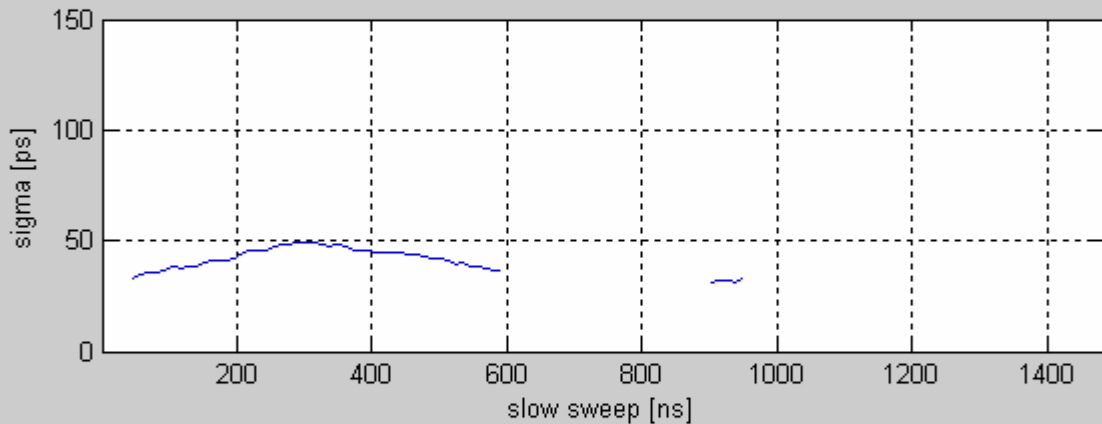
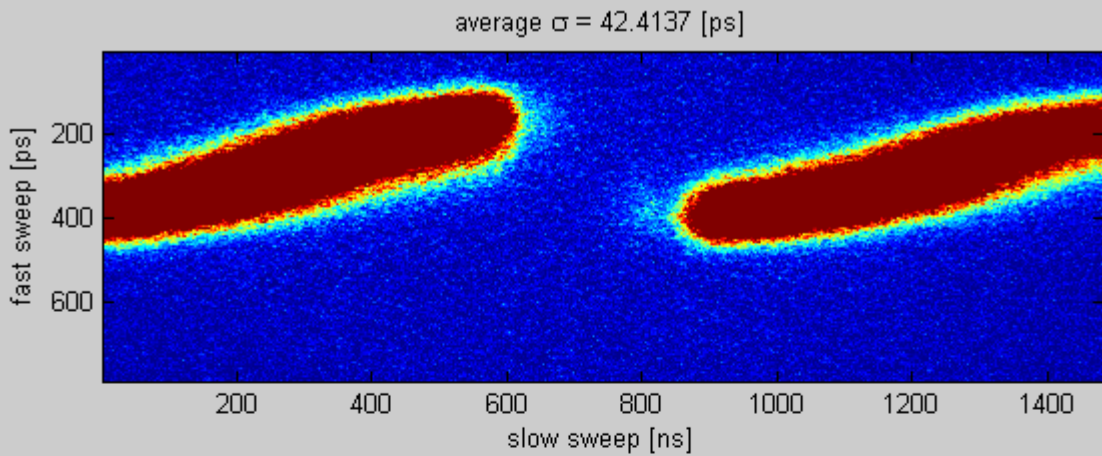


file name: 50ps\_100ns\_192buckets\_acc5\_4a.bmp

30% gap – Camshaft current 0.536mA

Camshaft bunch 435 - Start/end gap 336/480

(bunch 0 and 480 are the same)



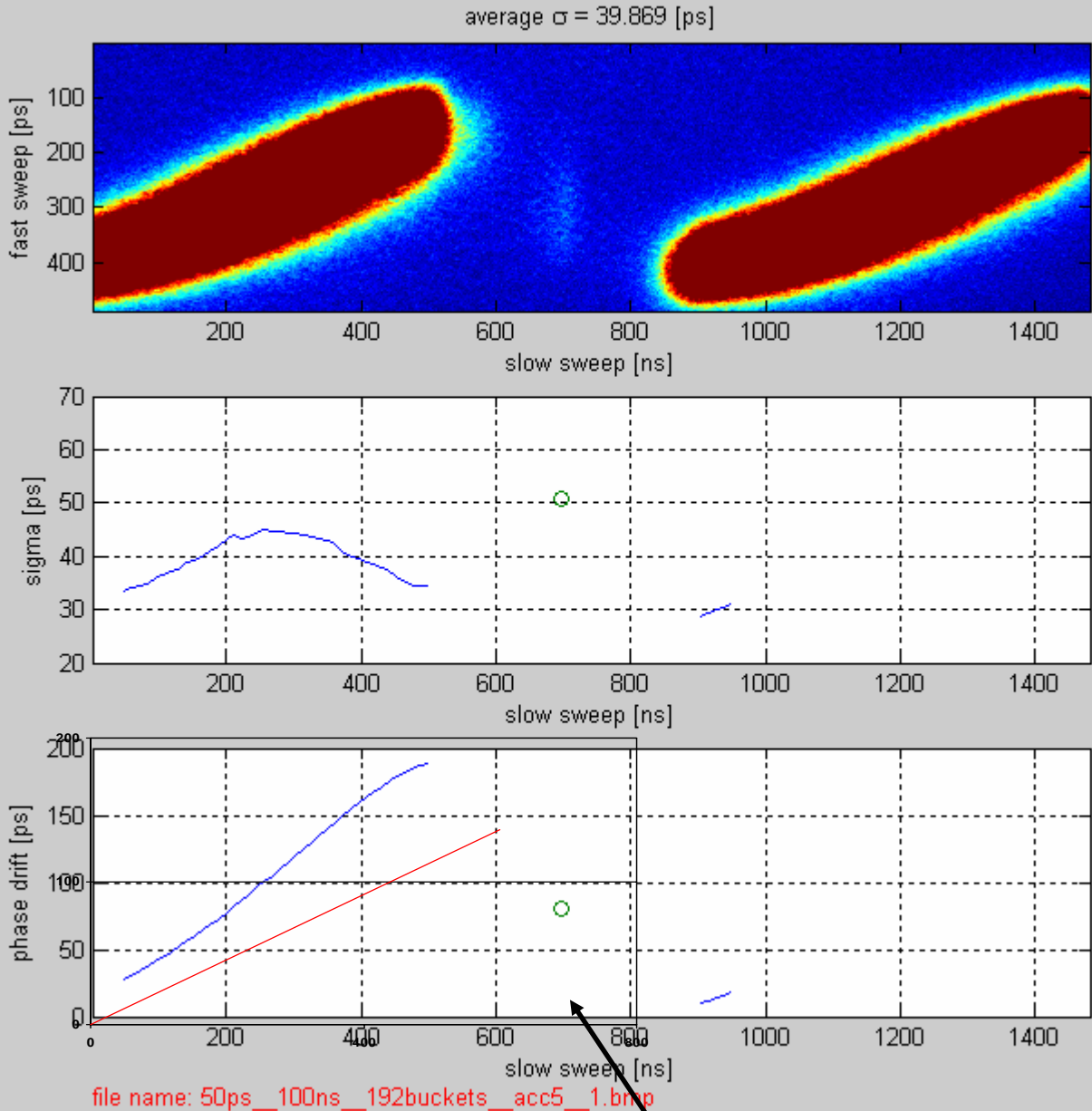
file name: 50ps\_100ns\_141buckets\_1.bmp

Simulation with a multibunch  
single particle tracking code

40% gap – Camshaft current 0.56mA

Camshaft bunch 384 - Start/end gap 288/480

(Remarks bunch 0 and 480 are the same, signal marginally saturate)



Simulation with a multibunch  
single particle tracking code