

# Beamline Tests of Elevated Vertical Beam-Size during Injection Down-time

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TWG Meeting  
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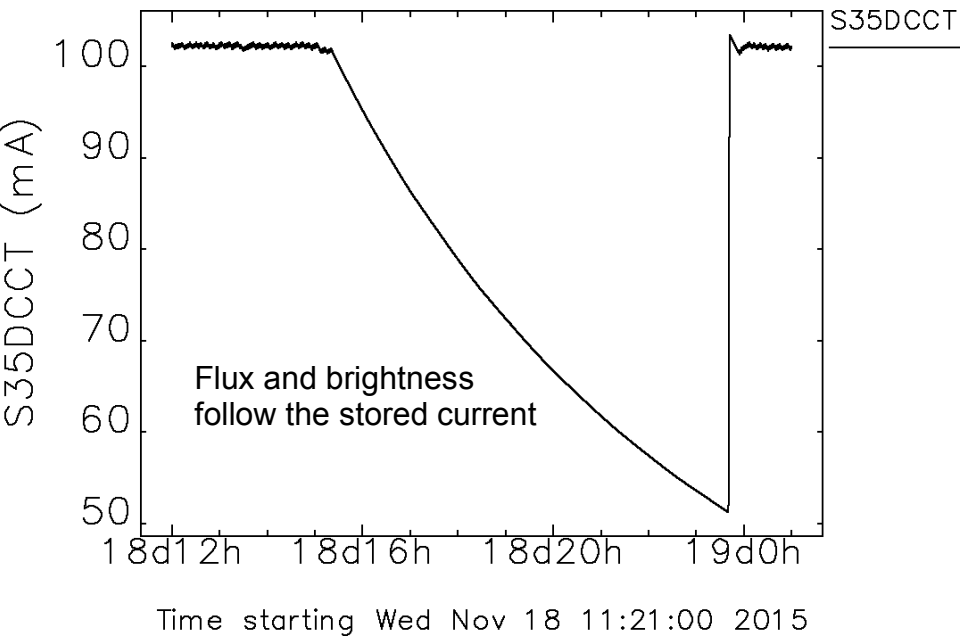
# Motivation

- Beam decay can be alleviated by increasing vertical beam size below a certain value of stored current
- Trade-off between loss of flux or loss of brightness
- Determine what reduction of brightness is tolerable by beamlines during injector down time

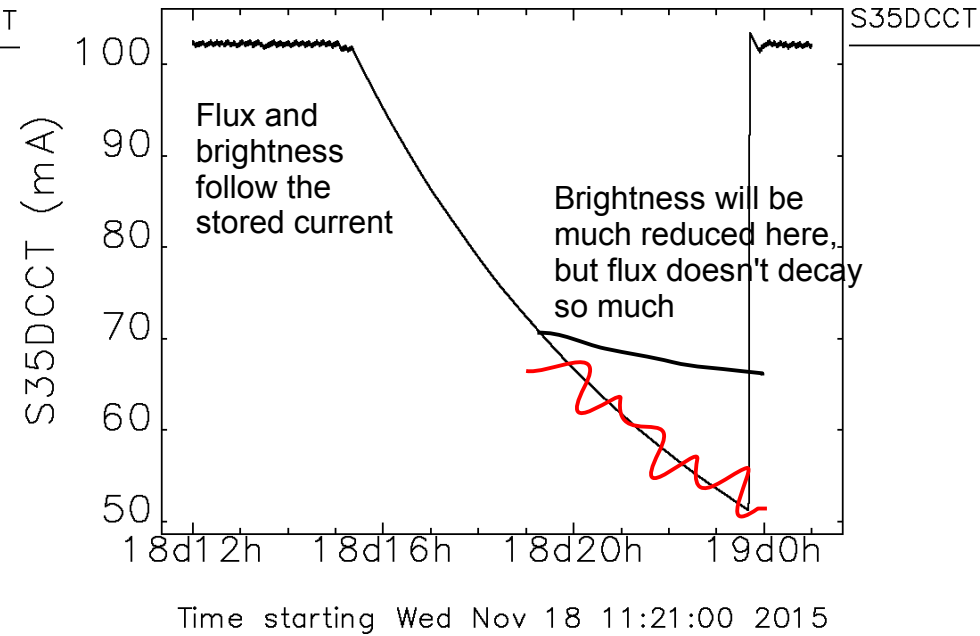


# Hypothetical Case Using Data from Nov 18<sup>th</sup> 2015

Do Nothing



Increase coupling to 25%  
at 70 mA



Downtime starts at  $I < 50$  mA



# Two-Hour Beam Study for all Beamlines

- Use machine studies time Feb 29<sup>th</sup>, 8-10 am (48 hour period)
- Shutter permit will end at 10 am
- Emittance ratio, normally at 1.4 % will increase in one or more steps till we get to 25%, or something like that.
  - Exact final coupling and number of steps will be known before the actual study

