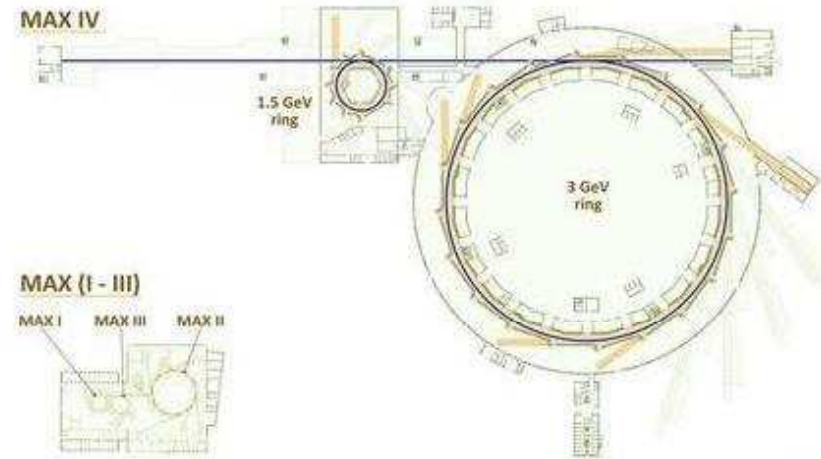


# Lima @ MAX IV



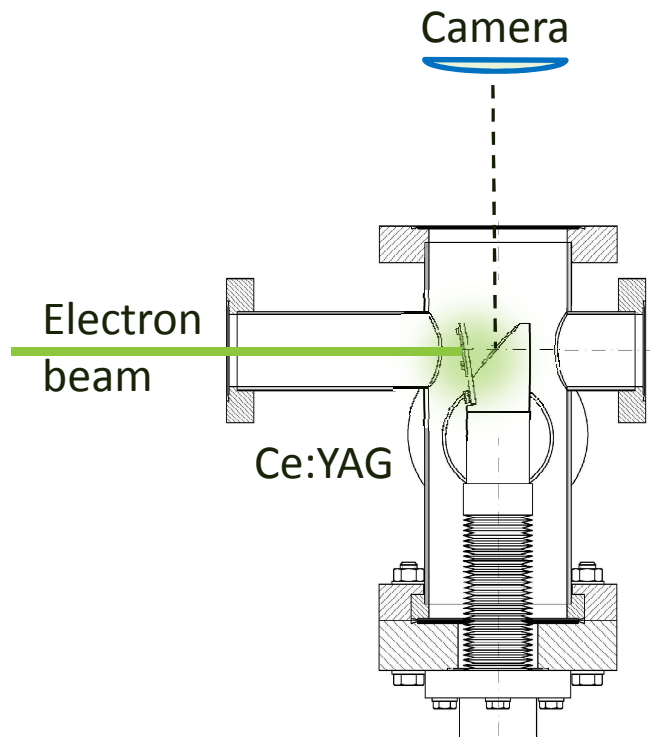
Andreas Persson  
MAX IV Laboratory  
Lund, Sweden

# MAX IV Laboratory



	2011	2012	2013	2014	2015	2016
Linac building	→					
Linac installation			→			
Linac commissioning				→		
Linac operation					→	

# Lima use case: Beam Profile Monitors



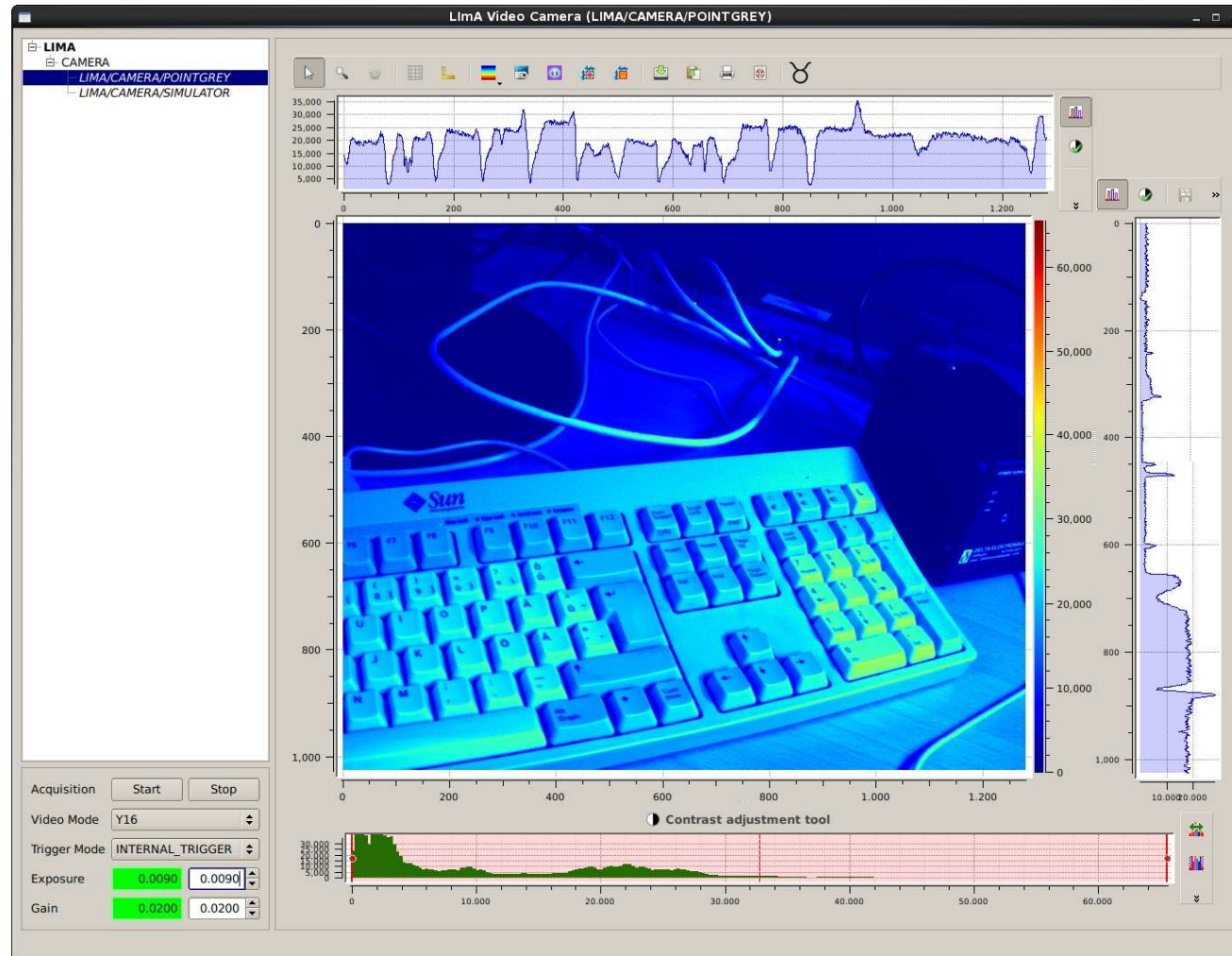
- ~25 screens along the LINAC
- Measurements:
  - Beam profile
  - Energy spread
  - Emittance
- GigE CMOS cameras
  - Basler ace
  - IDS uEye CP
  - PointGrey Blackfly
- HW trigger (10-100 Hz)
- TANGO control system

# Lima development

- PointGrey plugin
  - Video capability
- LimaCCDs
  - Register CtVideo::ImageCallback
  - Push change event for video\_last\_image attribute
- CtVideo
  - Execute user-supplied callback

<https://github.com/MaxIV-KitsControls>

# Taurus GUI



28/03/2013

Lima Workshop

# What's next?

- PointGrey plugin
  - HW ROI and Binning
- Image Processing
  - Measurements (profile, position, spot area, ...)
  - Calibration (mm/pixel)
  - GUI integration
- C++ device server for video cameras?
- RPM packaging

# Discussion topics

- Image processing
- HW & SW buffer management
- Client applications
- Git(hub) workflow
  
- Video: Support for auto parameters (gain, exposure)