

MONSOON Project @ CTIO

Gustavo Rahmer

ETS - CTIO

CTIO involvement in MONSOON

- ❖ Early stages (pre-PDR)
 - ❖ Collaboration in core documents
 - ❖ DHE Backplane ICD
- ❖ Development stage (post-PDR)
 - ❖ IR Clock&Bias Board: design, assembly and tests
 - ❖ CCD 8-channels Acquisition Board: design ready
 - ❖ Lab system for a Hawaii-2 mux
- ❖ Next on the horizon
 - ❖ MONSOON CCD Lab System in La Serena

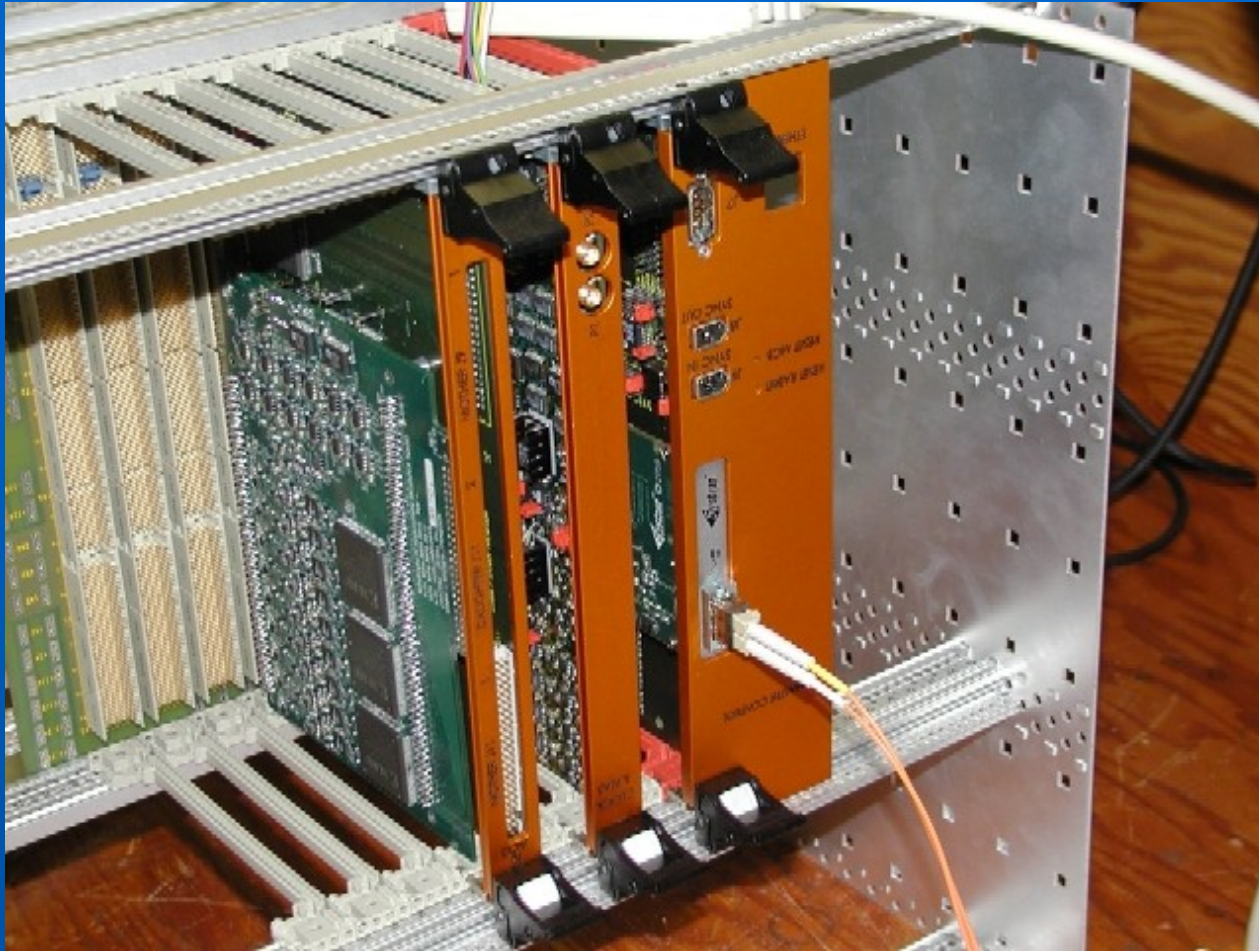
CTIO resources for MONSOON

- ❖ Gustavo Rahmer (EE): 100%
- ❖ Ricardo Schmidt (EE): 10% (consultant)
- ❖ Michael Warner (EE): 10% (consultant)
- ❖ Electronic Technician: 50% (when needed)

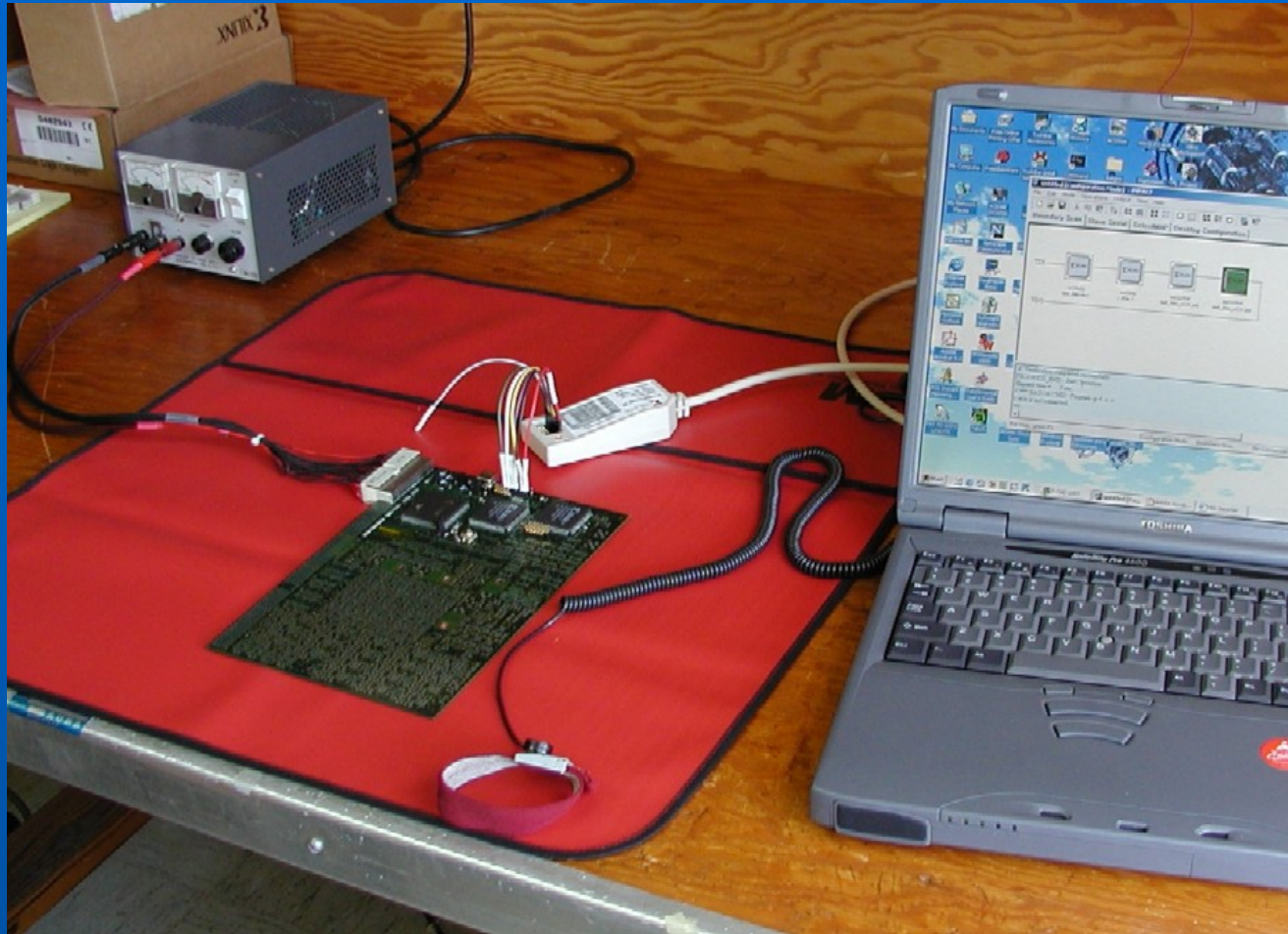
CTIO Lab System

- ❖ PC 1GHz, 512Mb RAM, 10Gb HDD, Linux
- ❖ Systran SL100 Fiber link: PCI to CMC
- ❖ Detector Head Electronics:
 - ❖ Master Control Board
 - ❖ IR Acquisition Board (36 ch)
 - ❖ IR Clock&Bias Board
- ❖ Xilinx Development Tool in laptop
 - ❖ In-System Programming link

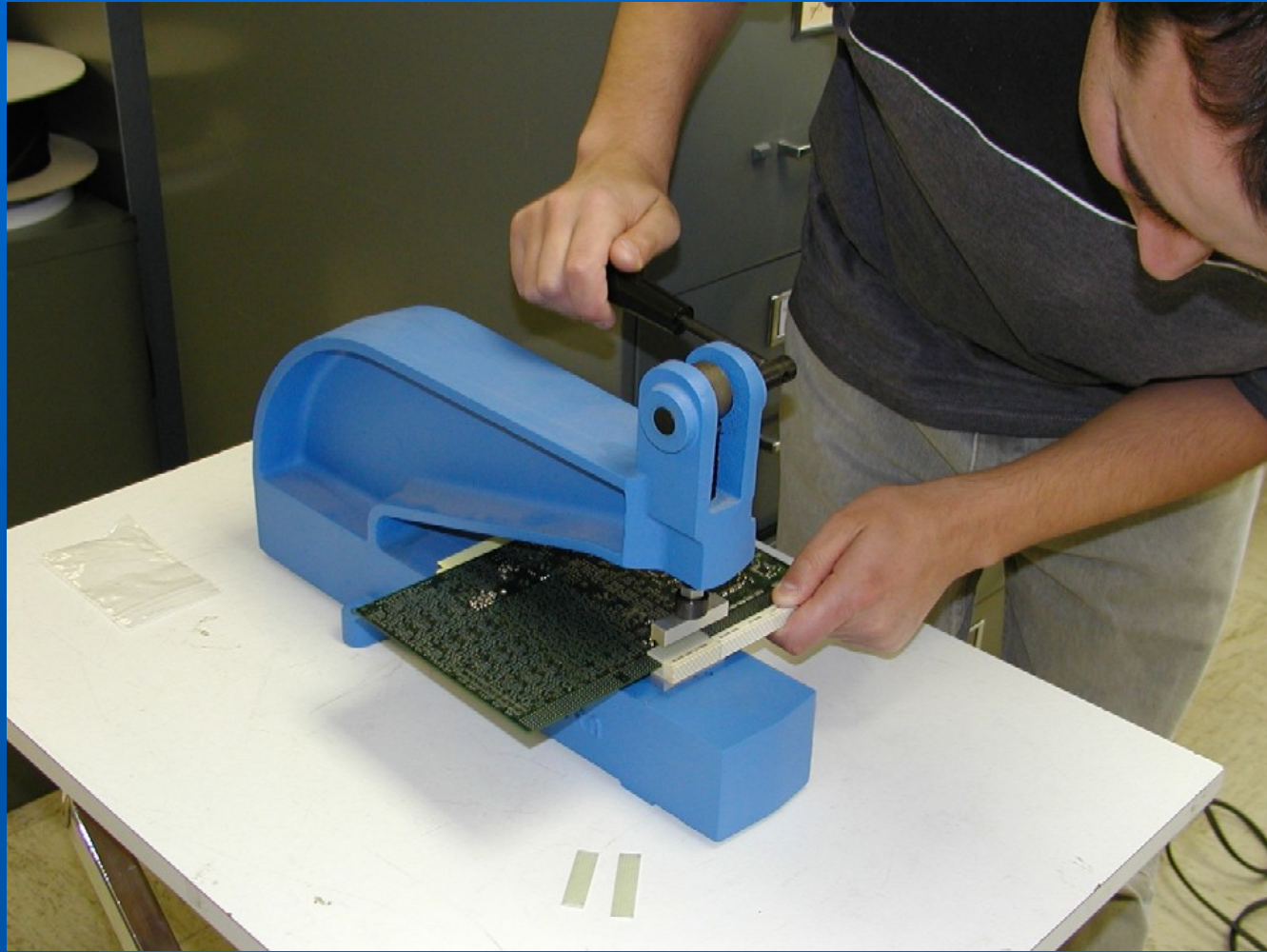
CTIO Lab System - DHE



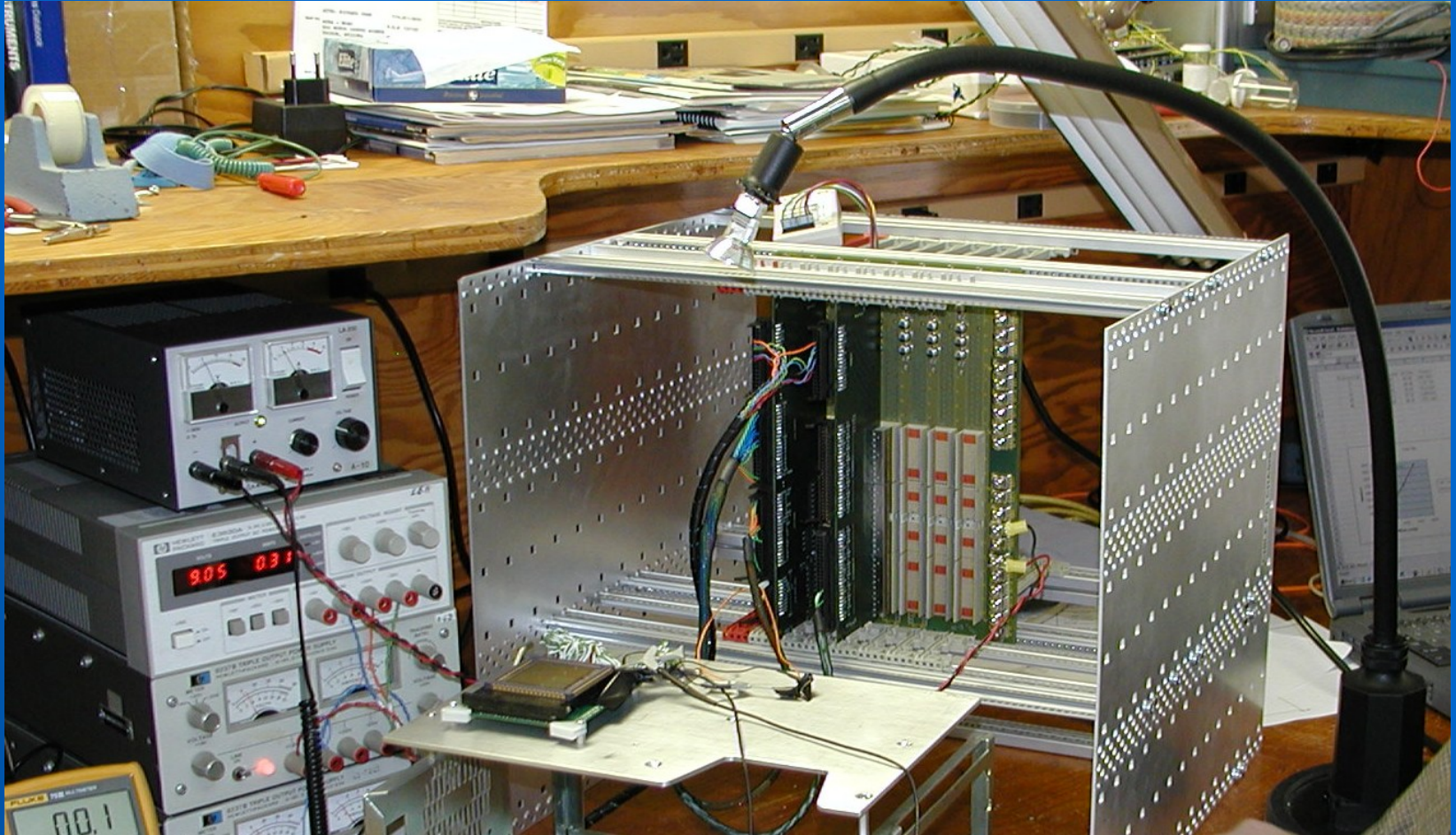
CTIO Lab System – Board Tests



CTIO Lab System – Board Assembly



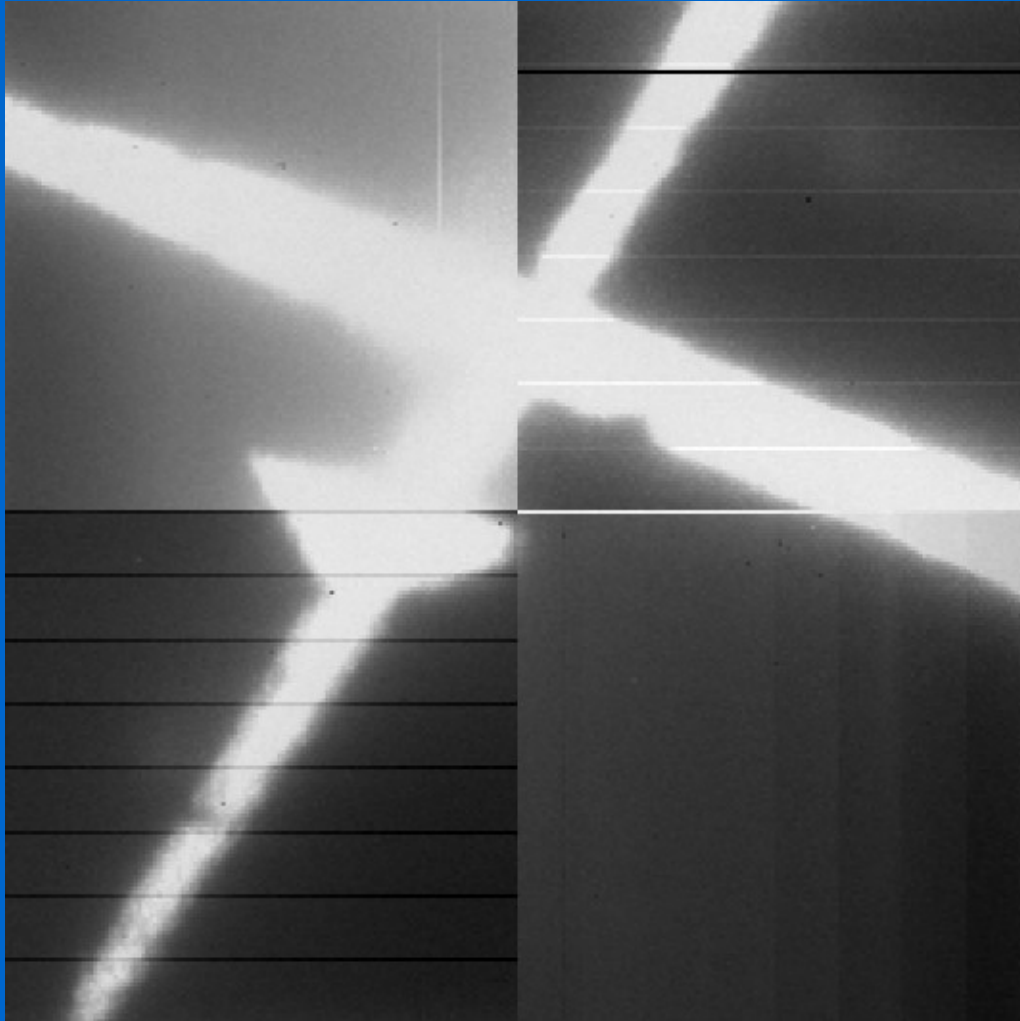
CTIO Lab System – Test Setup



MONSOON South Demonstration

- ❖ Hawaii-2 bare mux:
 - ❖ loan from ISPI project
 - ❖ had been characterized using SDSU controller
 - ❖ 4 channels @ 330 Kpix/s
- ❖ Goal: verify functionality, produce an image
- ❖ Sequencer patterns were translated from actual patterns used in ISPI
- ❖ First light obtained in September 5 (3 weeks after Aladdin@Tucson)

System Demonstration – First Light



System Demonstration – First Light

