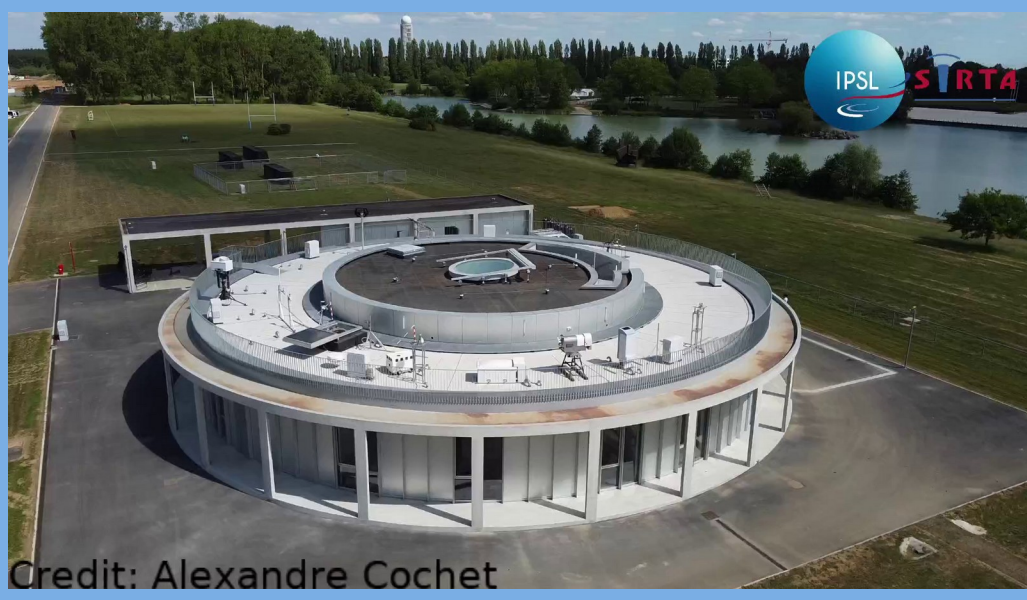


New Infrastructure

- Observatory building to enhance access and environment
- Controlled rooms for optimal environment
- Secured roof for safety environment



Credit: Alexandre Cochet

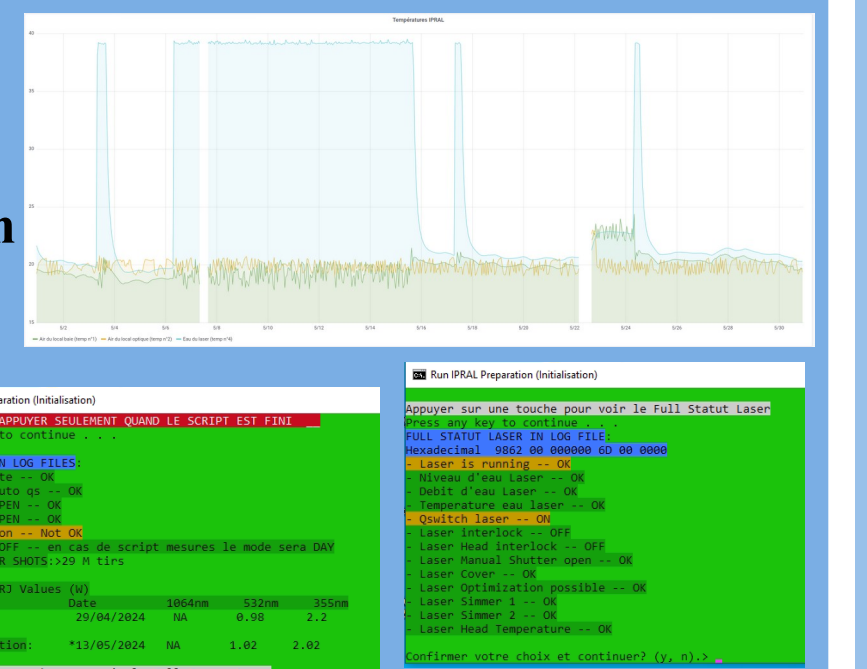
New Developments since 2022

- New 3 λ laser: Lumibird Qsmart-450
- Laser power & phase matching control
- New "eye-safe" alignment module
- Optical protection to prevent damage Due to back reflections
- Safety devices to secure workers and visitors during operations

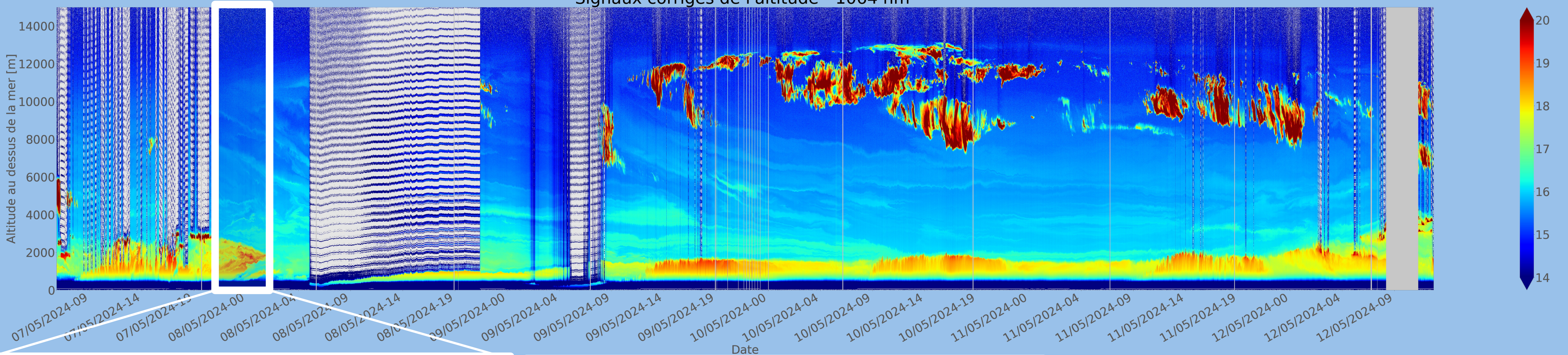


New Tools

- Laser and environment monitoring
- Operation supervisor based on python server, bash scripts & log files
- New IPRAL Automatic monitoring and Quality Assurance

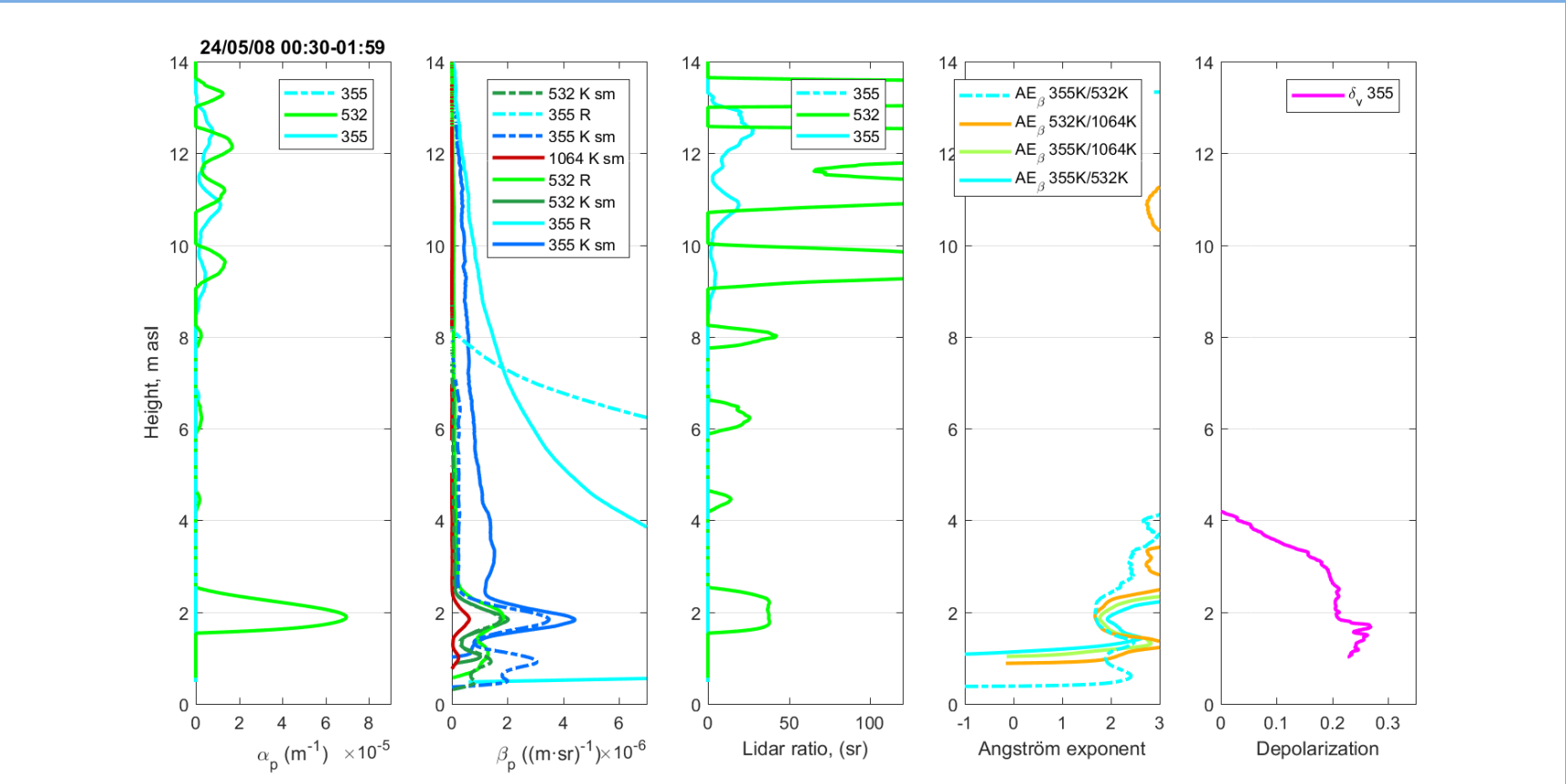
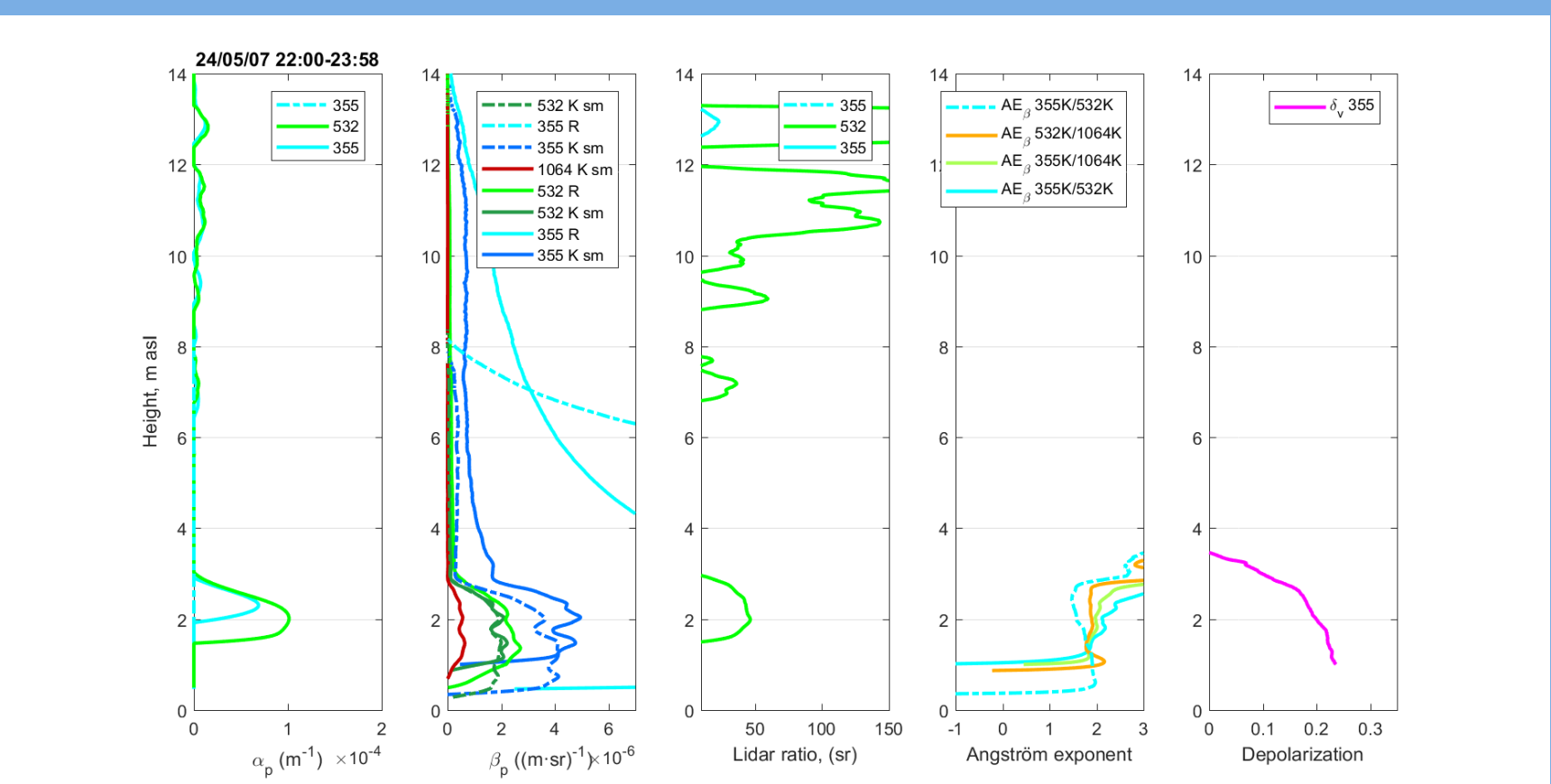


Observations IPRAL période du 2024-05-07 au 2024-05-12
Signaux corrigés de l'altitude - 1064 nm



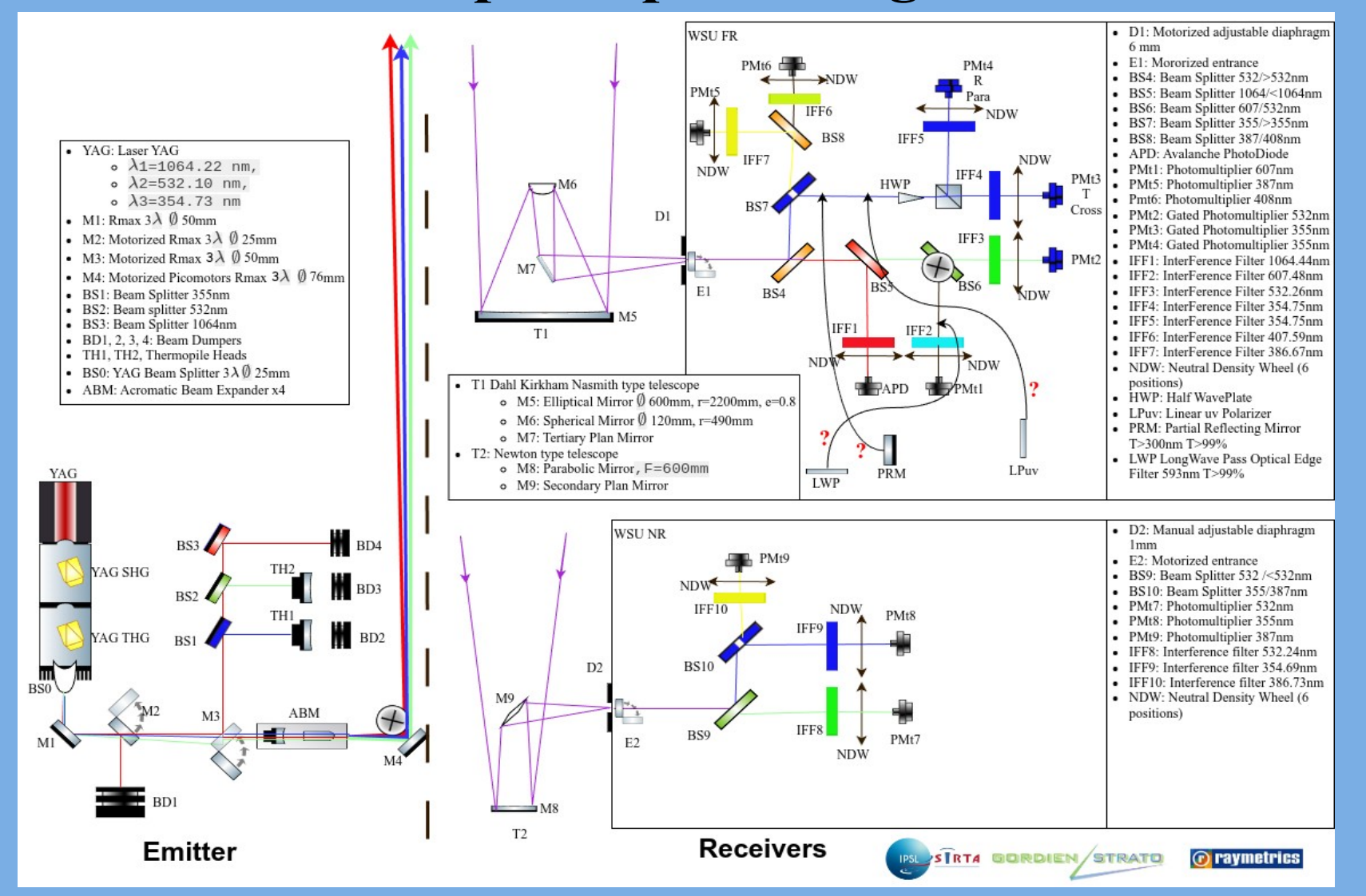
Data processing & Algorithms

Indra

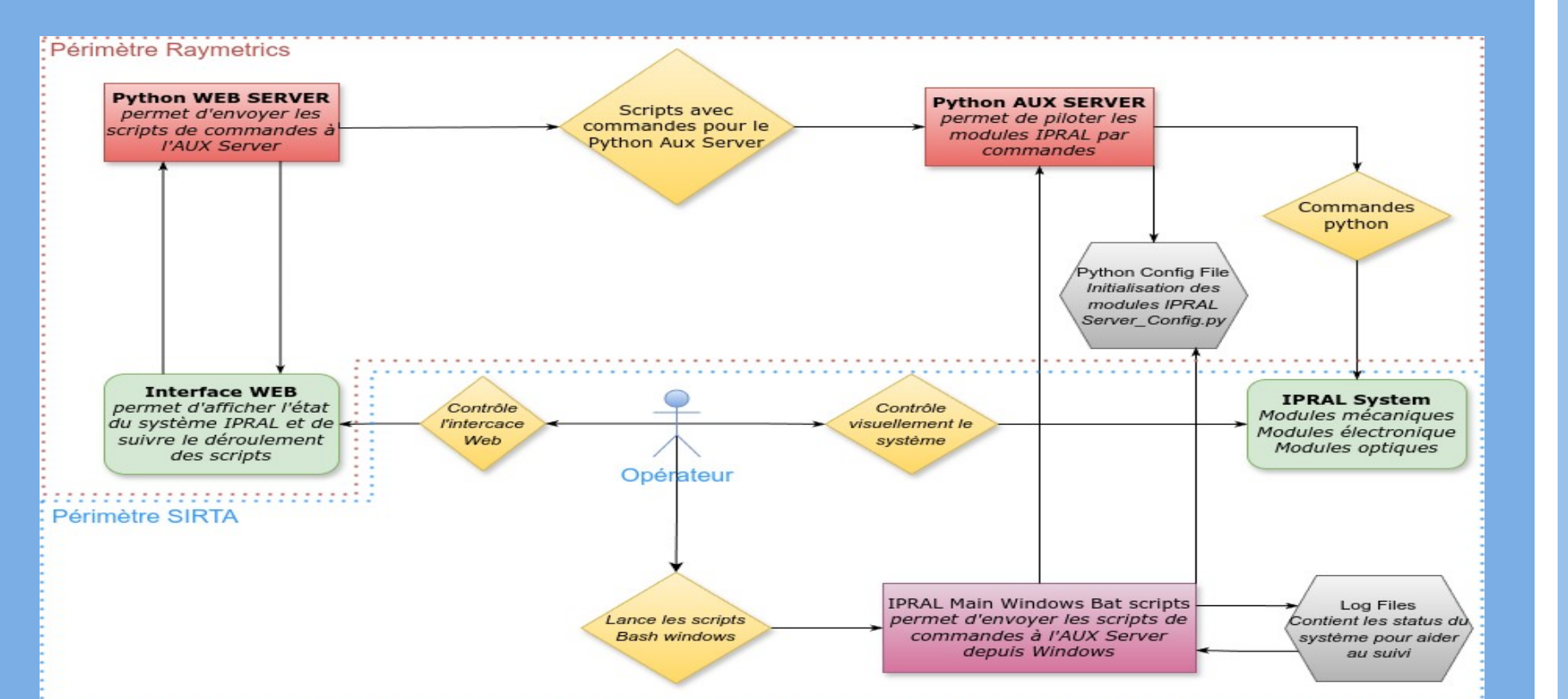


Single Calculus Chain (Standard ACTRIS Algo)
Ongoing work

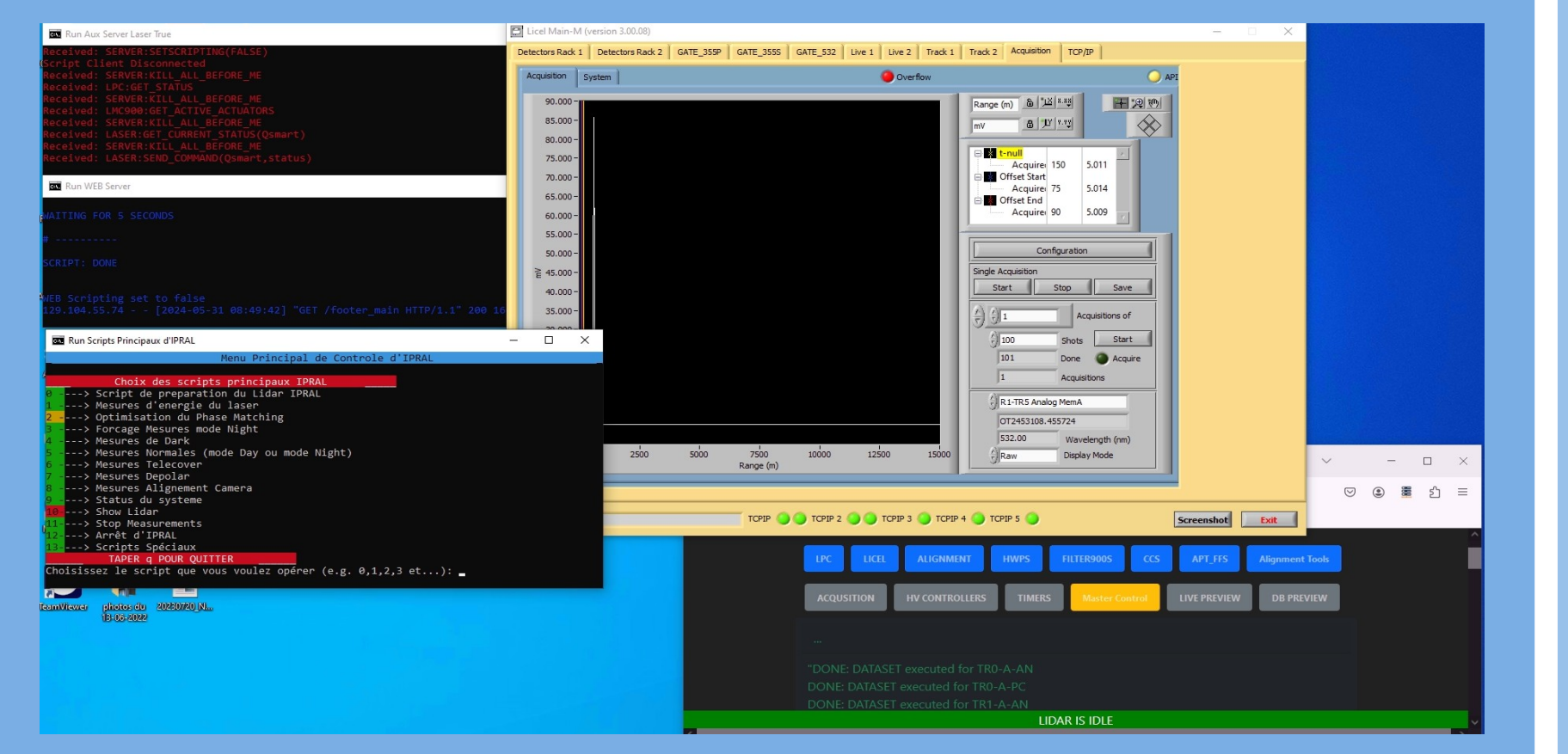
Optical path design



New Operation & data acquisition Flowchart



Bash Python and Web Graphical Interface



Electronic Notebook to monitor operations & maintenance

