

# Top Level Use Cases

proposal of additional use cases

Daniel Mazin

Bologna, June 22, 2016

- 009 Observe a point like source
- 010 Observe an extended source
- 011 Observe of a source within fixed time MWC
- 012 Observe moon, planets and other celestial objects with no fixed Ra/Dec
- 013 Make a drift scan
- 014 Take Intensity interferometry on a star



cherenkov  
telescope  
array

# 009 observe a point like source

---

- Most common use of CTA!
- Can be triggered by other top level use cases but we should not simply assume that other UCs would cover this one in all cases

# 010 observe an extended source

---

- Common use of CTA requiring:
  - dedicated pointing strategy different from 009
  - dedicated analysis different from 009
- Therefore, needs extra use case



cherenkov  
telescope  
array

# 011 observe within fixed time MWC

---

- Not sure it is extra top level use case, but clearly observation strategy and success/failure modes are different from the existing use cases (001-008)

# 012 Observe moon, planets and other celestial objects with no fixed Ra/Dec

---

- Use case of fundamental physics
- Electron/positron/proton/antiproton shadow
- Special drive mode, pointing control and special data analysis
- Probably difficult for GO but for CTA it's surely a separate UC

- Use case of fundamental physics
- Special pointing control needed very special analysis needed
- Probably difficult for GO but for CTA it's surely a separate UC

# 014 Take Intensity interferometry on a star

---

- Use case for astronomy
- Special data taking mode, requires extra instrumentation
- Though not a main purpose of CTA, CTA should be prepared for this UC.
- Possible new requirements from this UC:
  - focal plane of the telescopes should be adjustable by YYcm
  - extra weight of XXkg can be mounted on the camera,