



# Three advantages of the KANATA 1.5-m telescope as a powerful partner for GLAST

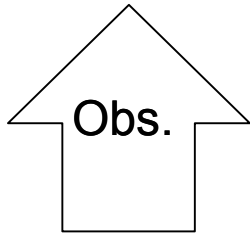
M. Uemura,  
on behalf of the KANATA telescope team  
(Hiroshima University)

**What's  
“KANATA”?**

# GLAST & multiwavelength observations



- Blazars
- Microquasars
- GRBs
- New sources



+

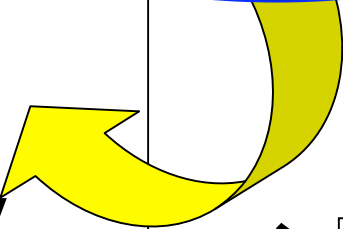
## Multiwavelength observations

- Radio
- UV
- X-ray

## • Optical & IR

- Variability
- Polarimetry
- Opt.-IR SED

“KANATA”  
1.5-m telescope



Nature of objects



# Our new observatory

Higashi-Hiroshima Observatory

1.5m telescope, "KANATA"



**What can  
“KANATA”  
do?**



# Three characteristics of KANATA

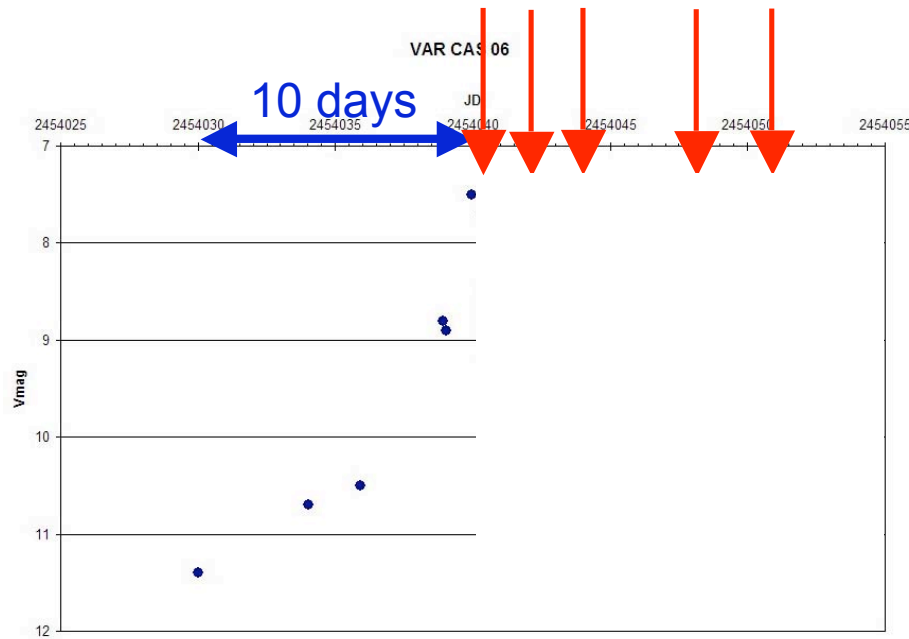
- Prompt observations
  - Example 1
- Polarimetric observations
  - Example 2
- Simultaneous Optical & IR observations
  - Example 3



# Prompt Observations

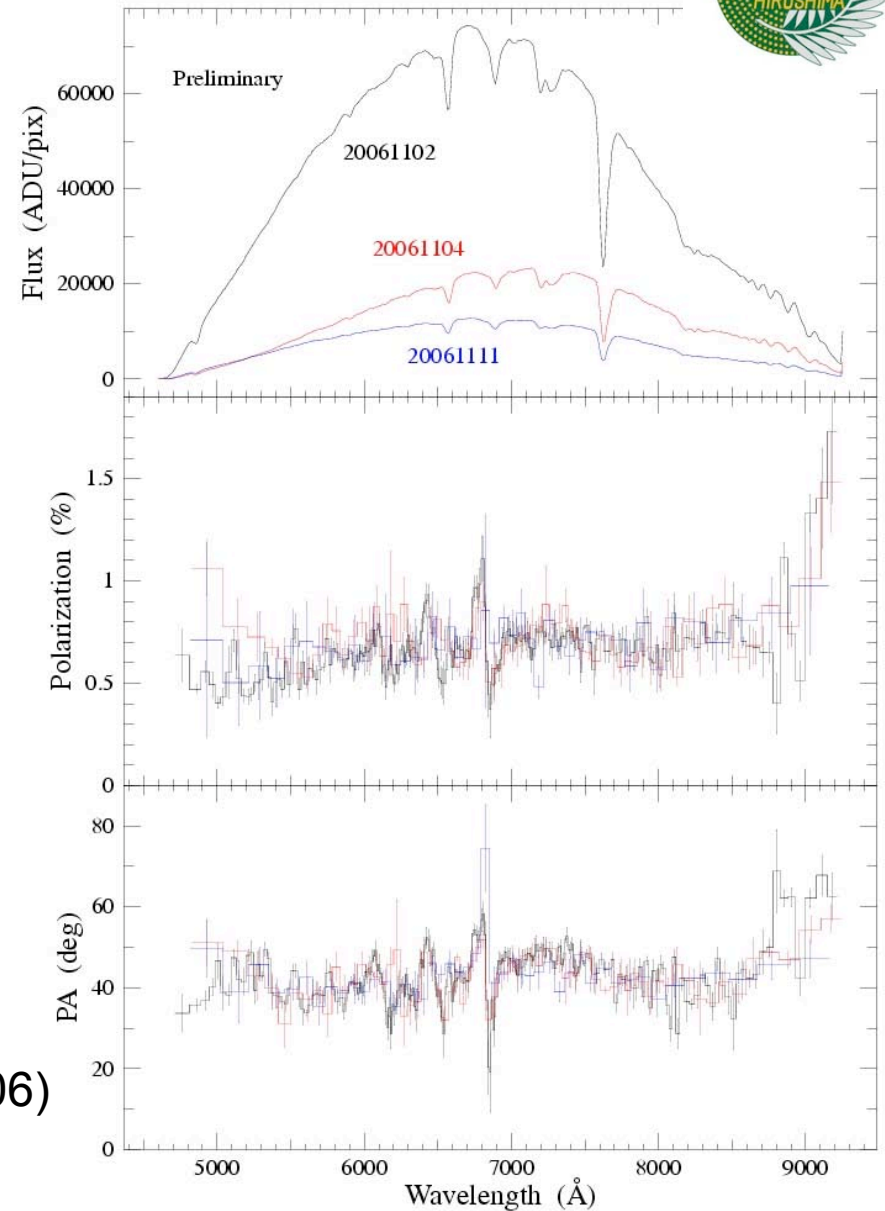
- Private observatory of Hiroshima Univ.
  - 20 min. by car
  - Remote & automated observation (planned)
- having advantages for
  - GRBs and other transients
  - new sources

# Example 1: GSC3656-1328 (Tago's object)



Microlensing event ?? (Mikolajewski, et al. 2006)

Kawabata et al. 2007 (in prep.)  
Var Cas 2006







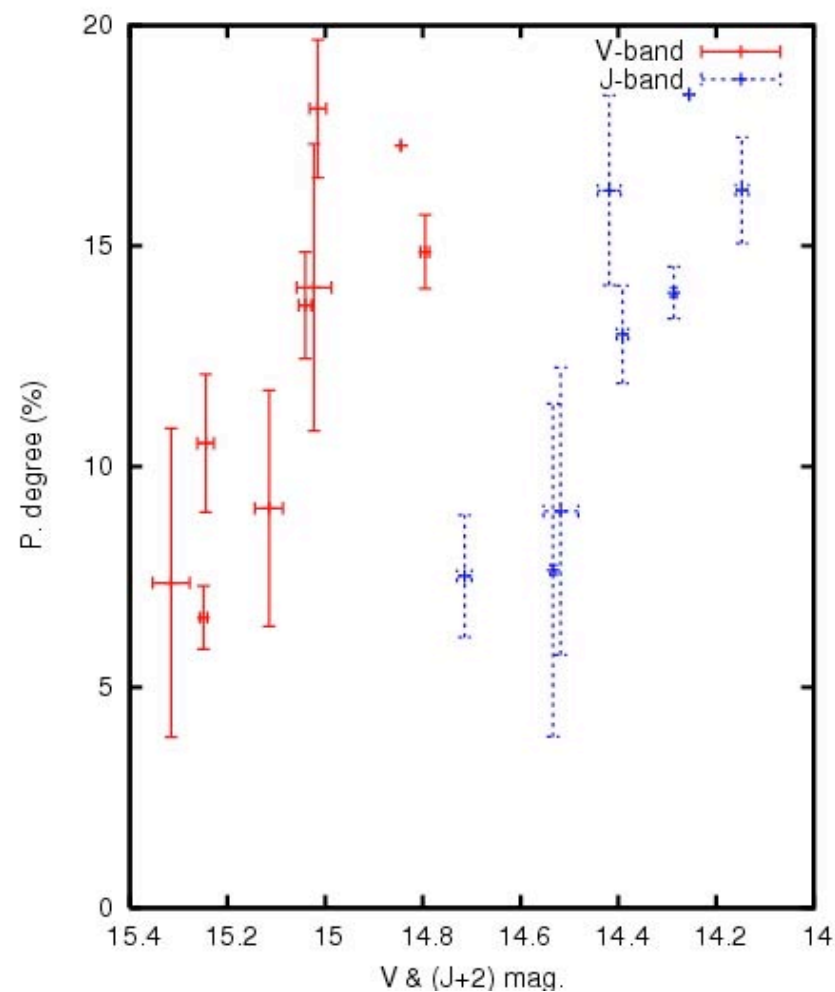
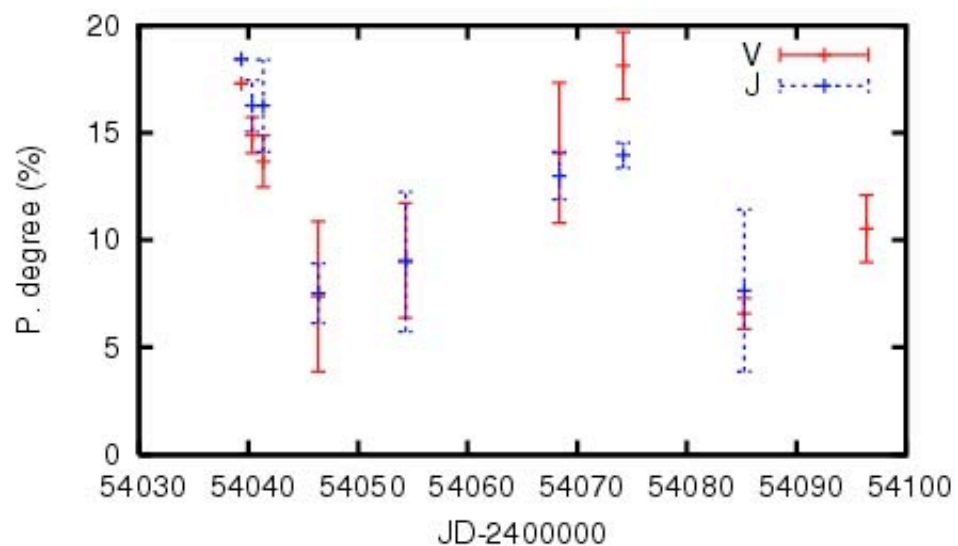
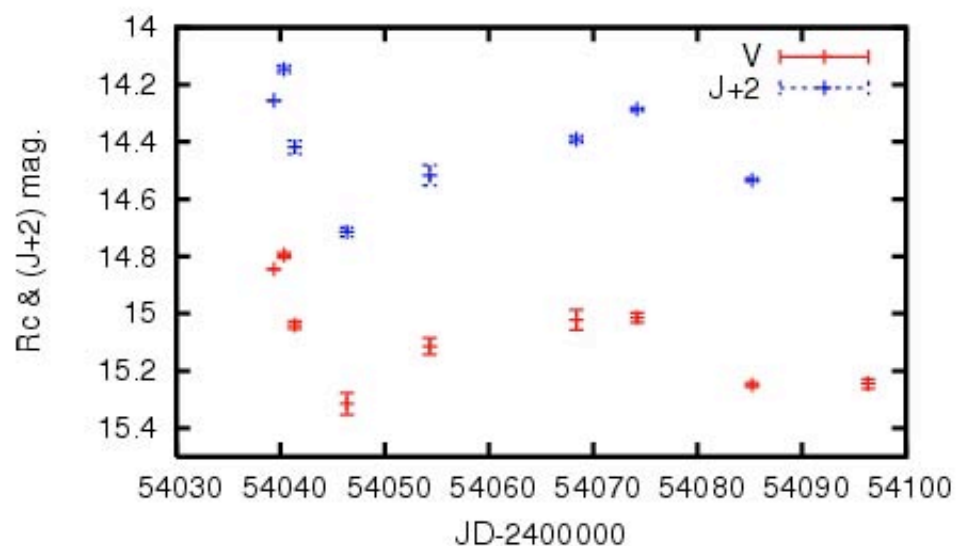
# Polarimetric observations

- TRISPEC
  - Imaging & spectropolarimetry
- HOWPoI
  - Double Wollaston prism
- having advantages for
  - Blazars
  - Microquasars and microblazars
  - GRBs

mode	Limit magnitude $T_{\text{exp.}}=10$ min, S/N=10, P= $\Delta 0.2\%$ )
imaging	R~20 mag.
Imaging polarymetry	R~16 mag.
spectropolarymetry	R~13 mag.



# Example 2: OJ287 in 2006

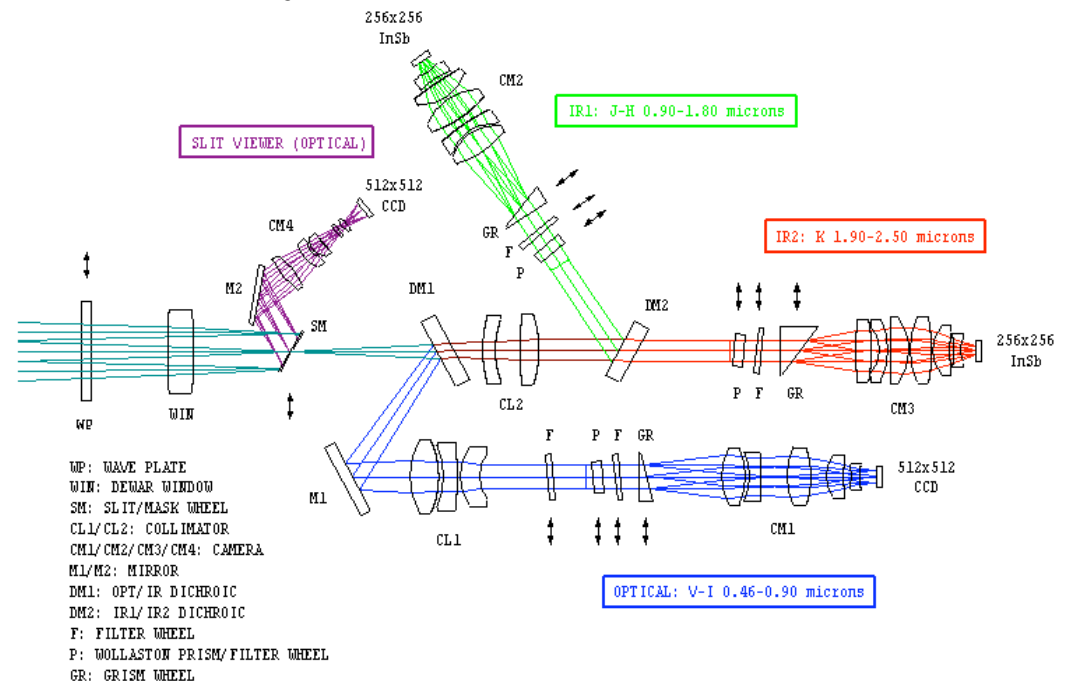


# Simultaneous Optical & IR observations



- TRISPEC
  - OPT, IR1, IR2
  - Imaging, spectroscopy and polarimetry
- having advantages for
  - Temporal evolution of SEDs of GRBs, blazars, and other jet sources

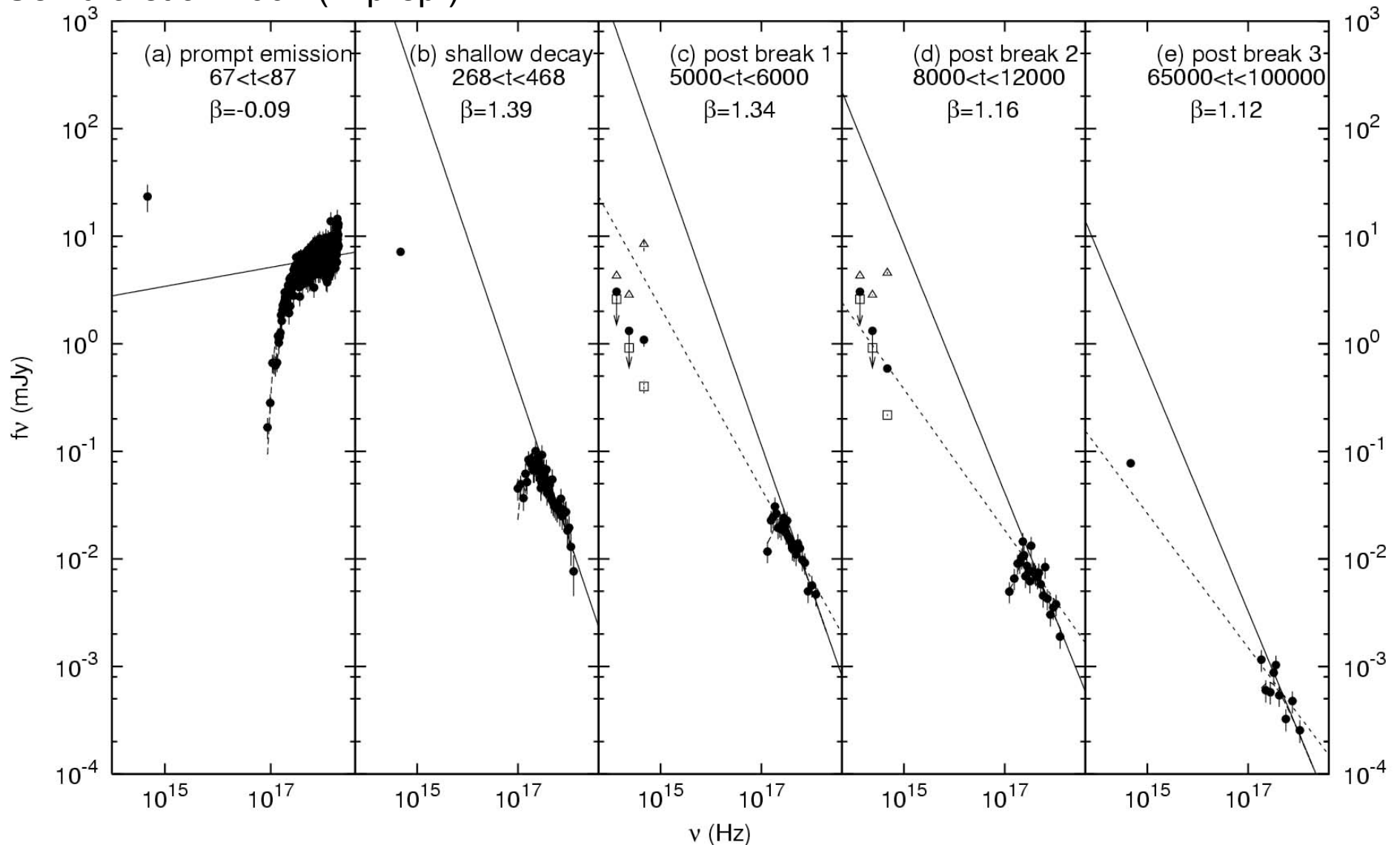
Layout of optics of TRISPEC



# Example 3: GRB 061121



Uemura et al. 2007 (in prep.)

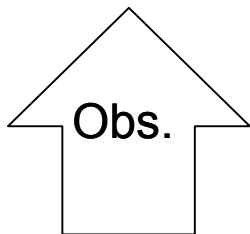


# Summary



# Summary

- Blazars
- Microquasars
- GRBs
- New sources



Multiwavelength observations

**“KANATA”  
1.5-m telescope**



- Optical & IR
  - Variability
  - Polarimetry
  - Opt.-IR SED



Categorize new blazars/other jet sources using detailed optical information

Plenty of ToO times for transient phenomena