Subaru AO
A Thought
on Next Generation Instrument

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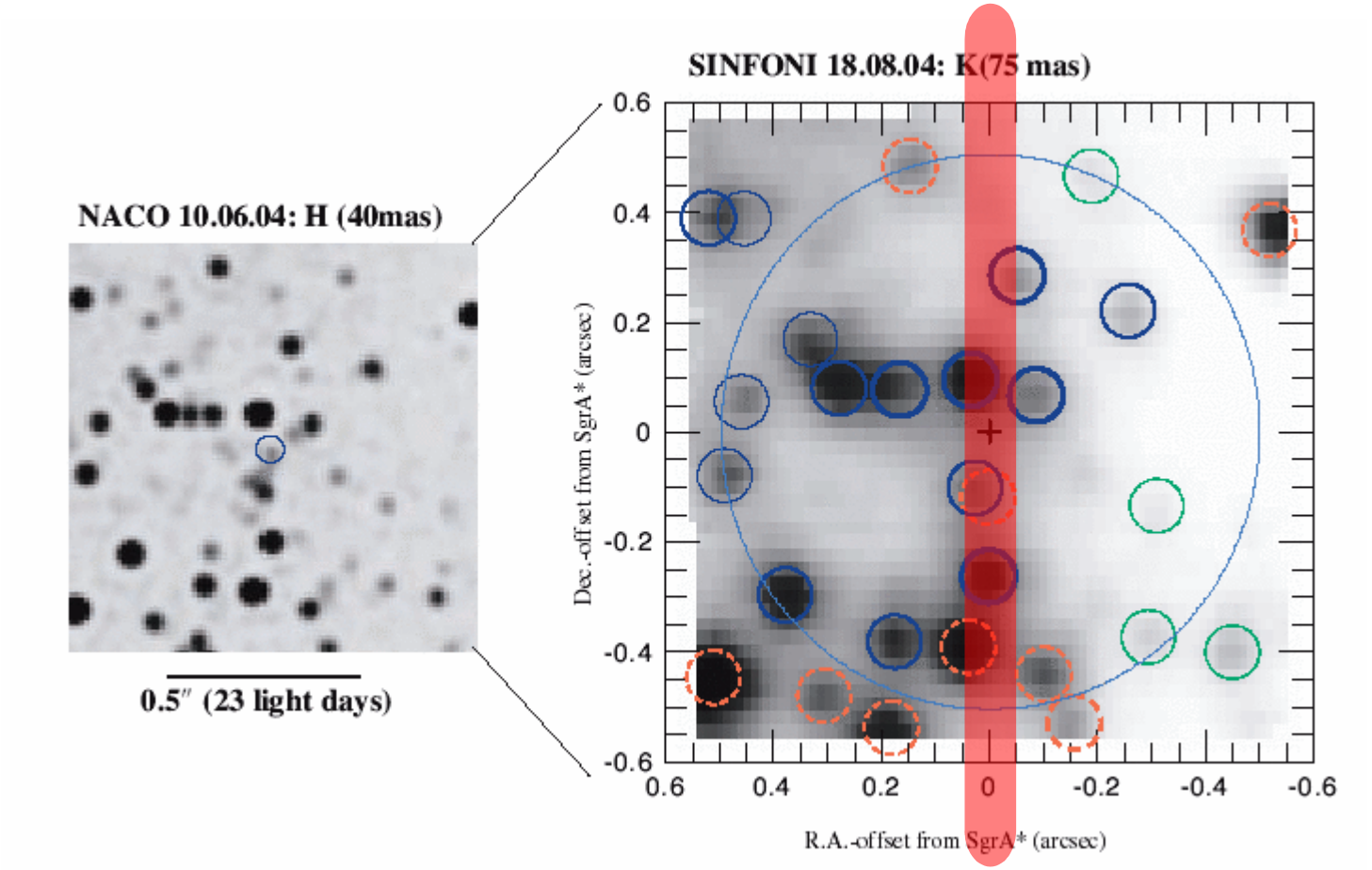
SAC members

Usuda, Iwamuro, Yamada

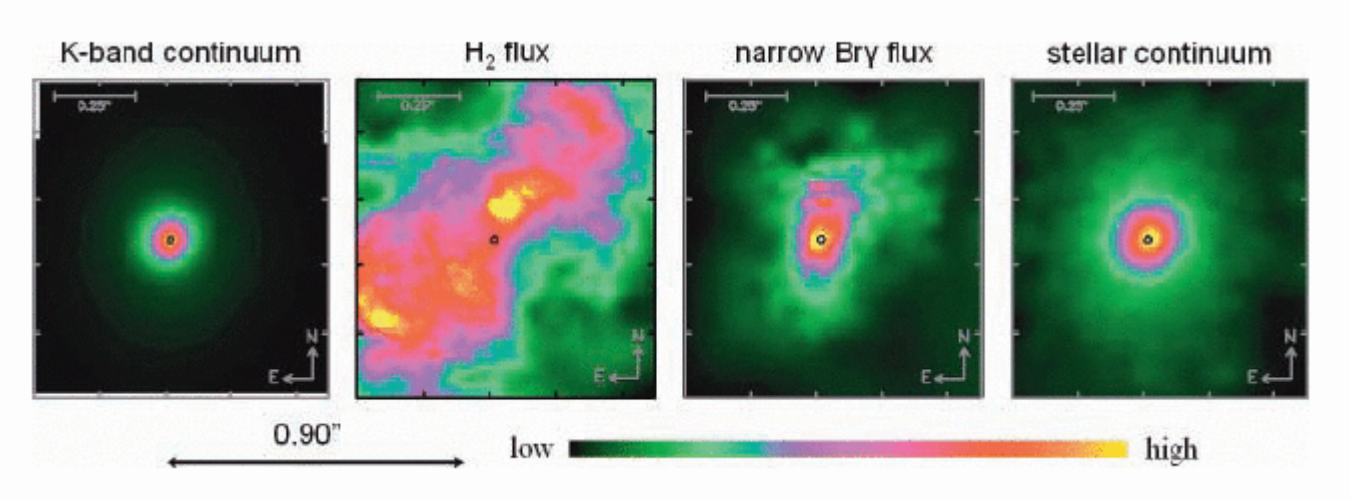
Three Points

1. AO is not a dedicated facility
   for planet search
   A variety of applications in the world
2. AO is a frontier
   spatial resolution 0".1-0".01
   comparable or better than space obs.
   increasing value w/spectroscpic information
3. AO brings high sensitivity
   especially for point sources

Targets: Stellar Clusters

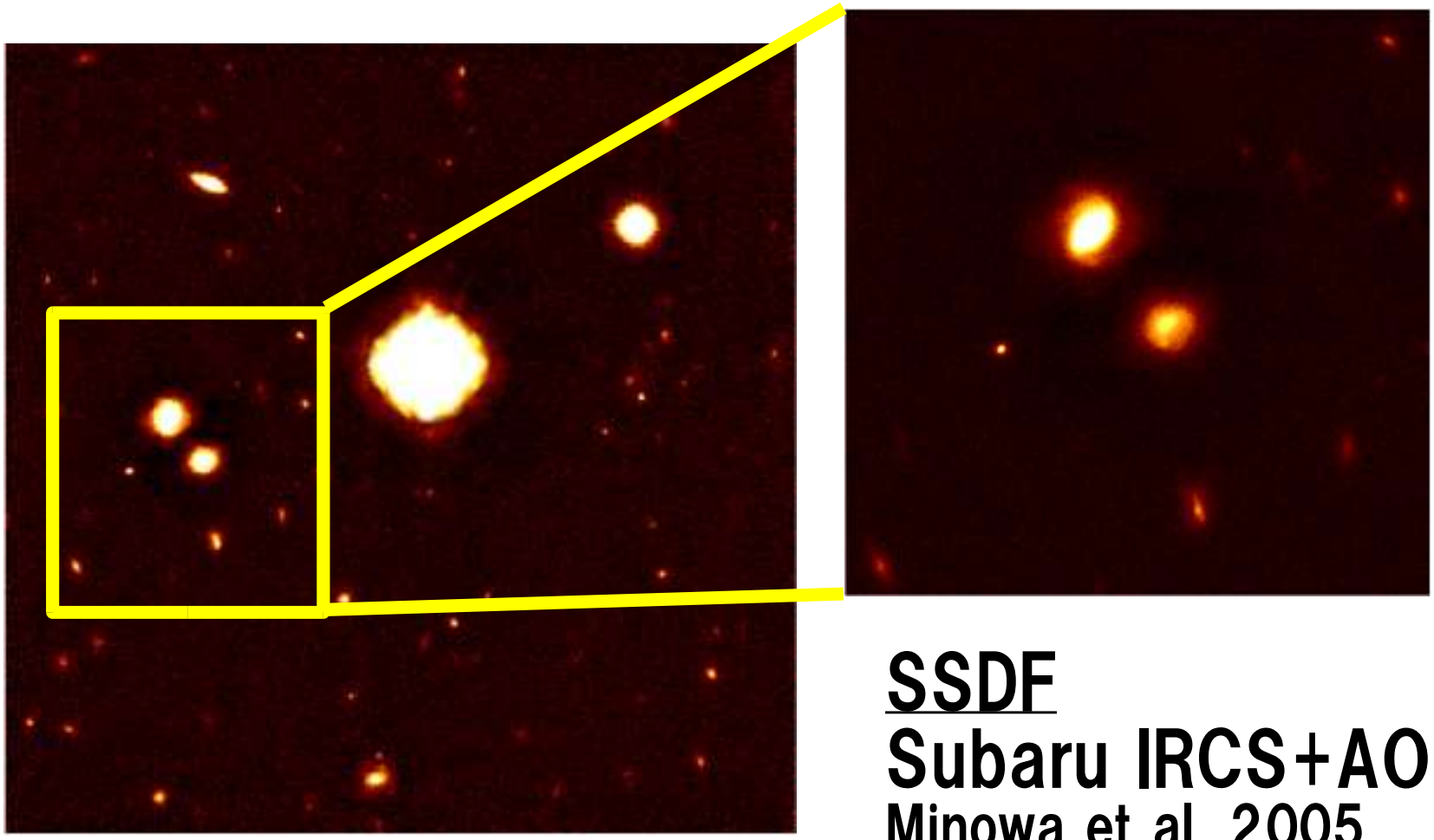


Targets: Compact Extended Objects



NGC3227
VLT SINFONI
Davies et al. 2005

New Targets: wider field



1-arcmin

SSDF
Subaru IRCS+AO
Minowa et al. 2005

Candidate Instruments

No-next trend in the AO world

1. Multi-object AO

   “crowded field” in 30-60 arcsec

   + high-spectral resolution (R>30,000, 10 km/s)

2. IFU

   “high-z galaxies, AGN, YSOs, PPNe etc.”

   kinematics and chemistry

   but already strong competitors @MPE&UCLA

3. Multi-IFU