

The GREAT-esf program GAGNES: Gaia for AGN and Extragalactic Science



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www.iap.fr/gagnes

Objectives : From ~500.000 quasars and AGNs with the exceptional astrometry of Gaia for :

- Reference system catalogs (radio and optical)
- Astrophysics Supermassive Black Holes / Star formation
- 2 different communities
- From France, USNO, UE, Brazil, Russia, Serbia,
- To prepare Gaia detections and data processing, ICRF (radio-optical), QSO LQAC , Physics on starbursts-AGN, QSO templates and nuclei,, and compact objects...

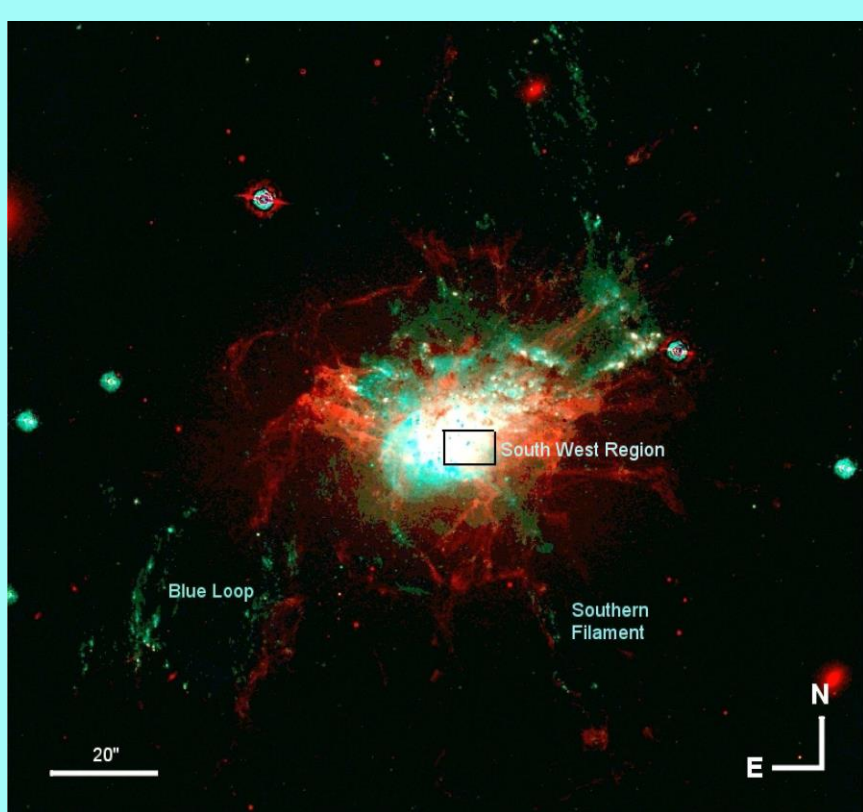
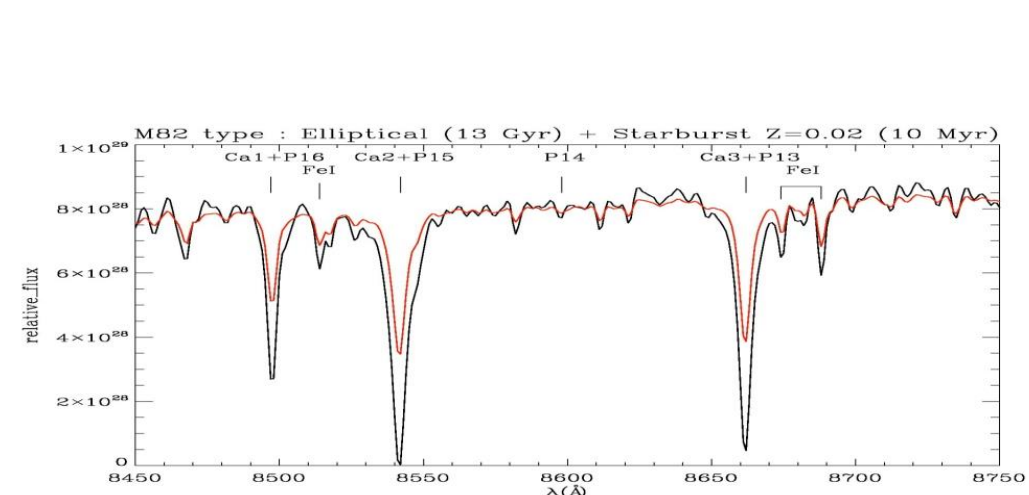


1st GAGNES colloquium 8-10 July 2015, Institut d'Astrophysique Paris, France

GAIA for AGNs and compact sources

- Monitoring: light curves, spectral changes,
- The importance of various GAIA alerts for HE and VHE sciences (upward, downward)
- Photometric & photocentric variability
- of AGN : accretion in radio-quiet AGN
- AGN contribution versus the host galaxy
- AGN / Star Formation
- The Galactic Center?
- Discoveries of new AGN and new types of AGN

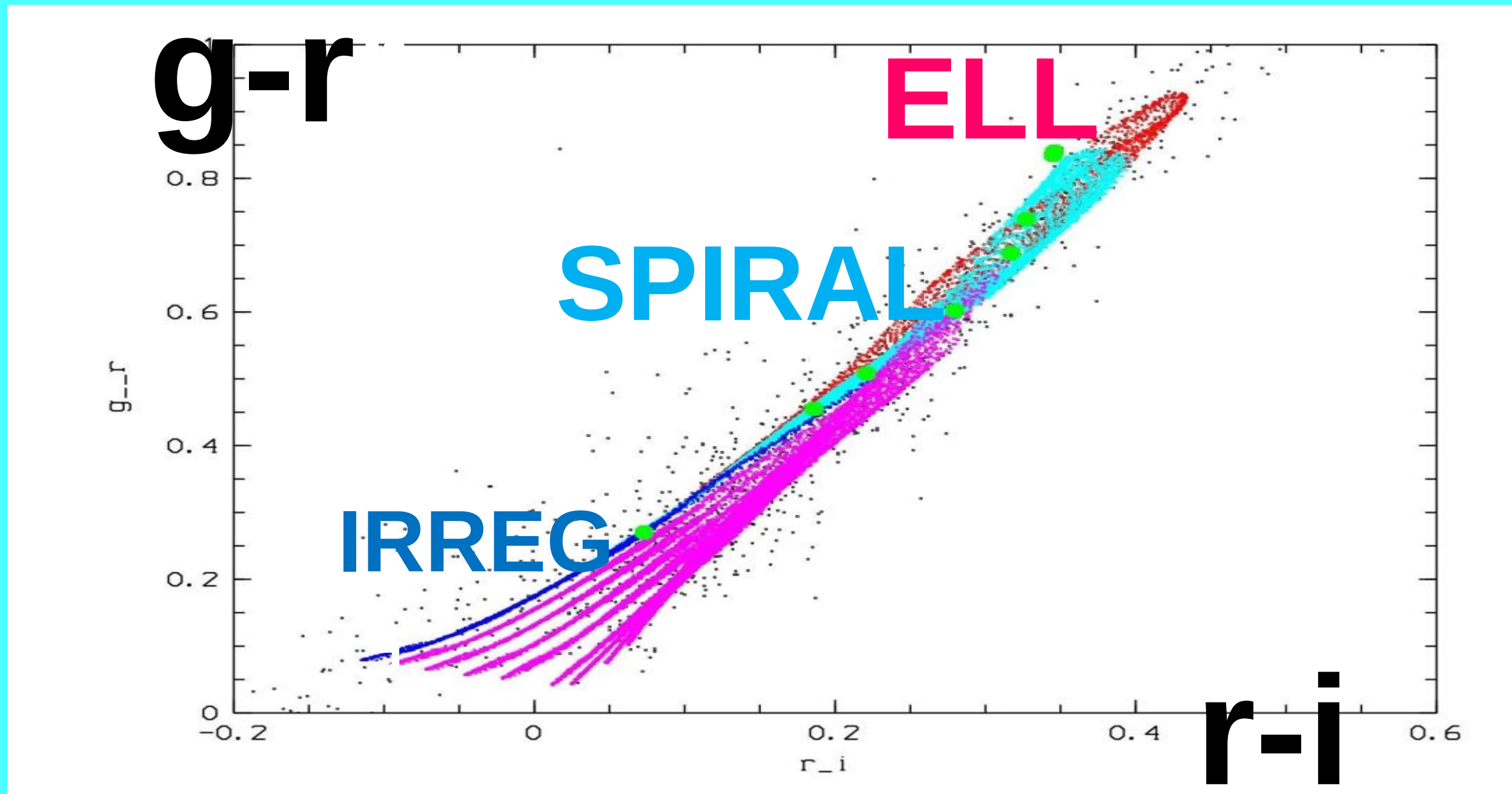
New tools: PEGASE_HR2 (Rocca-Volmerange et al , in preparation)



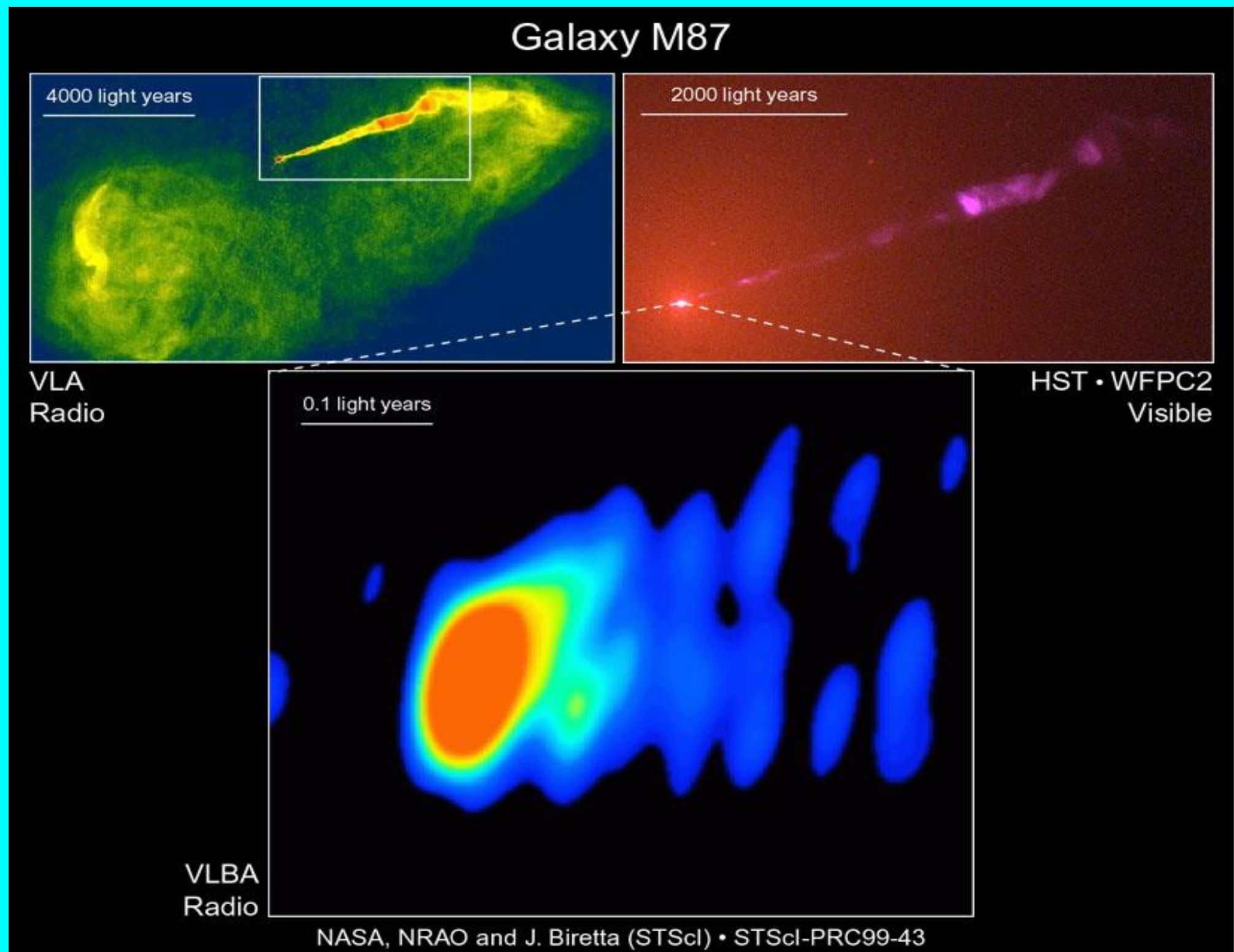
Supernovae/AGN:poster 370/S12
Star formation process by filaments in the radio galaxy NGC1275 Canning et al, 2010

Related Observations : MOONS : dense Galactic areas
WEAVE : MOS LR-HR spectrograph @WHT
MSE (MaunaKea SE) widefield

The adopted galaxy library from Pegase2 delivered to the CU2 (Tsalmantza et al, 2012)



Collaboration on Extragalactic Science with the Greek group (Pr M. Kontizas, P. Tsalmantza, E. Livanou, A. Karampelas, I. Bellas-Vellidis, E. Kontizas, et al) from 2009



Data now probe the regions very close to the central black hole at a few Schwarzschild radius (sub-mas, sub-pc)