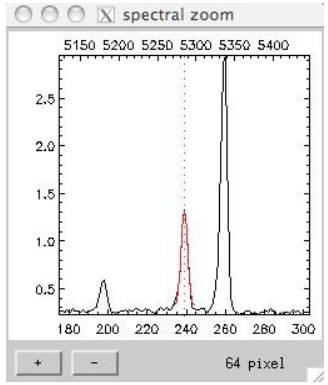
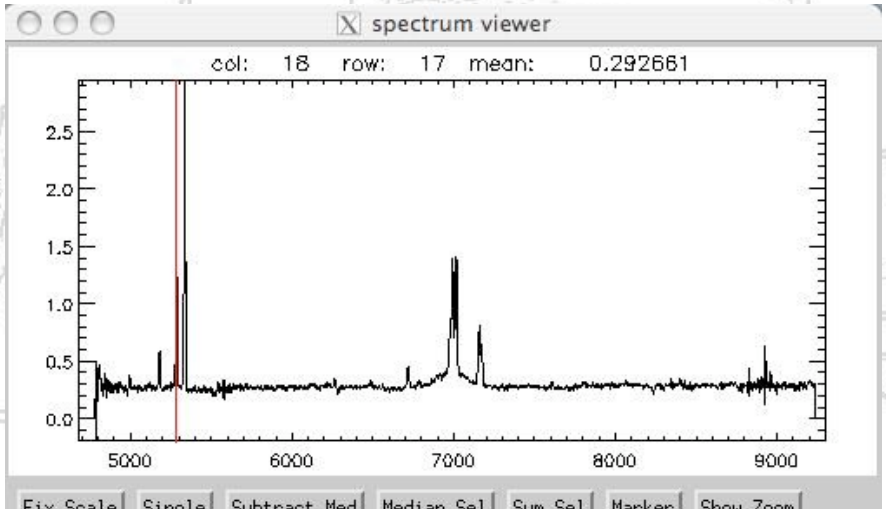
Mapping Jet Activity in an Interacting Seyfert

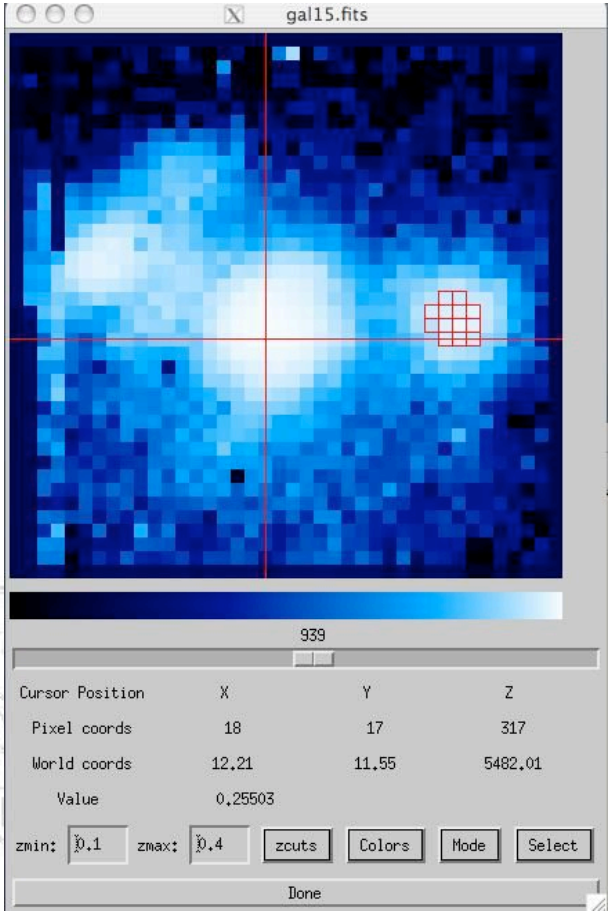
Joris Gerssen, D. Wilman, L. Christensen, R. Bower & V. Wild

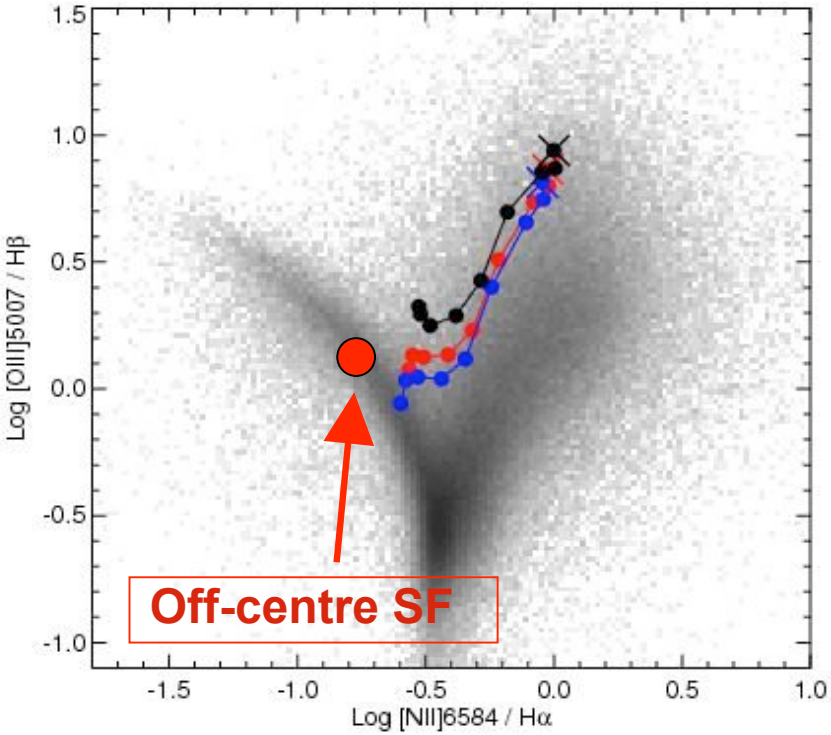
- VIMOS IFU (MR mode) observations
  - LEDA 135736, Seyfert 1.9, D = 293 Mpc
  - Texp = 60 min
  - Seeing >~ 1.5 arcsec

- Data reduction:
  - ESO pipeline followed by dedicated post-processing scripts (IDL)
  - Interactive visualisation (IDL)

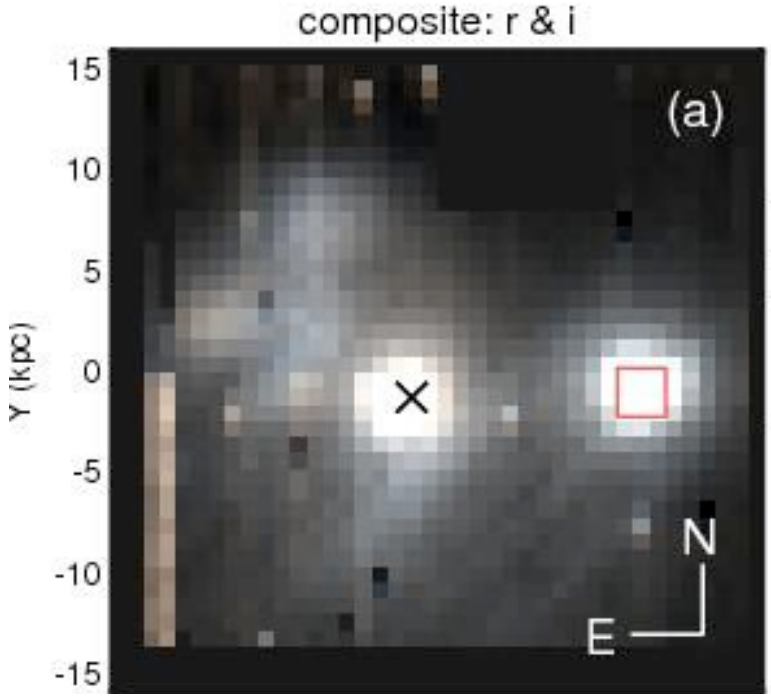


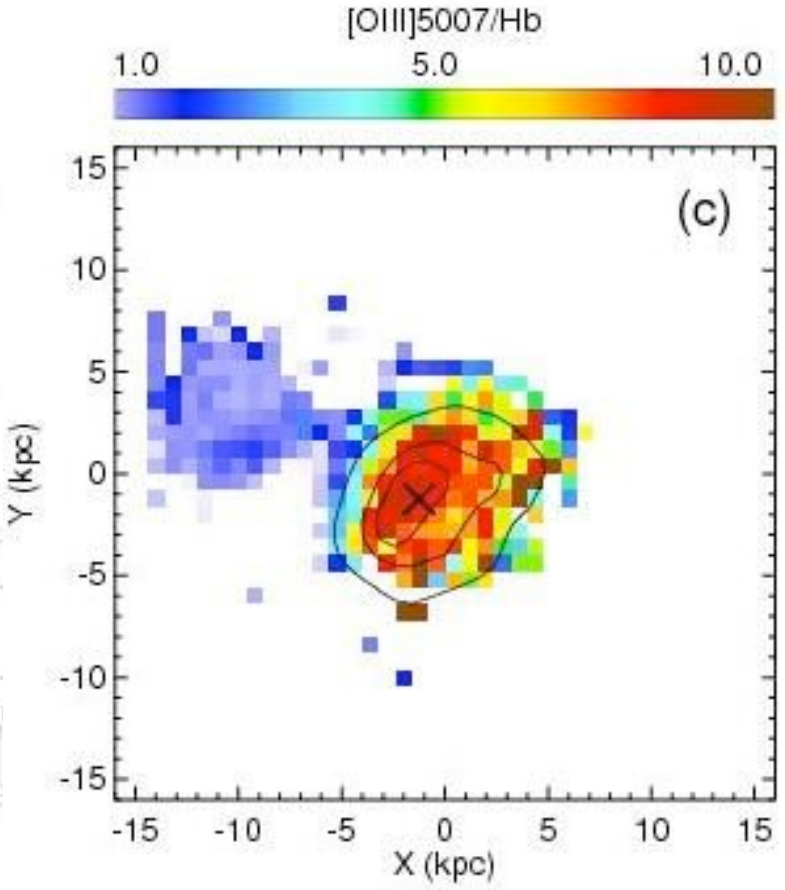


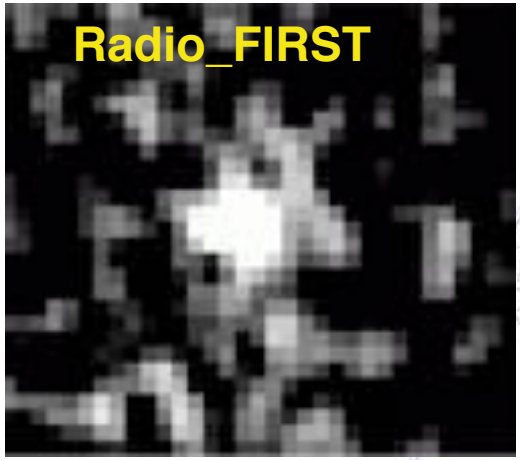


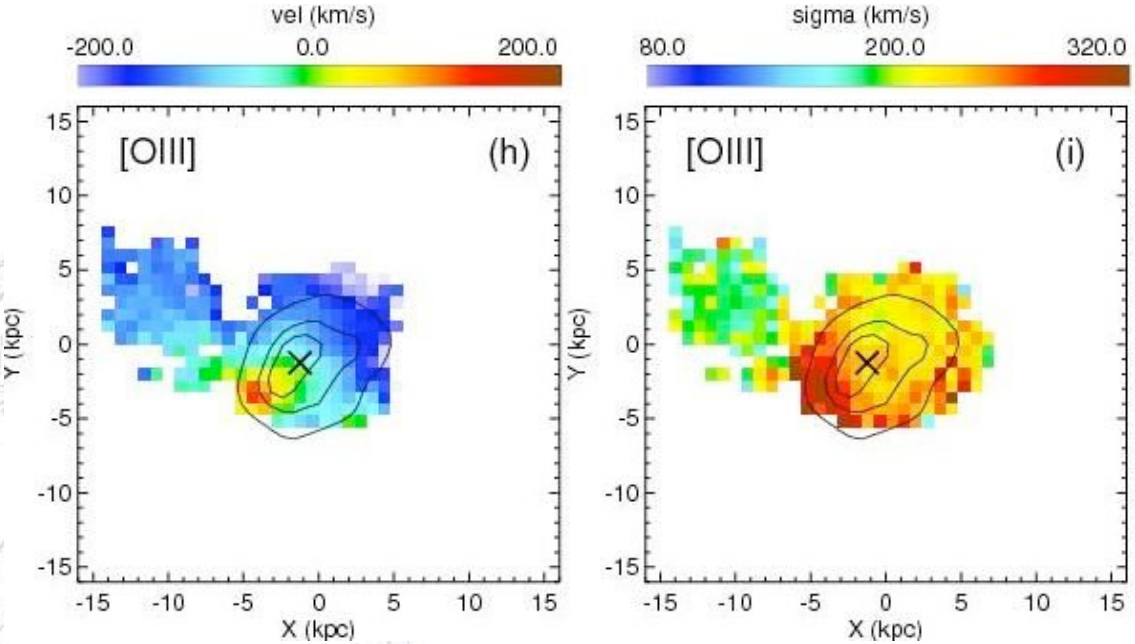


- Large Extended Narrow Line Region, R > 9 kpc
- Off-centre star formation at 10 kpc
- Elliptical companion, R_{proj} ~ 12 kpc





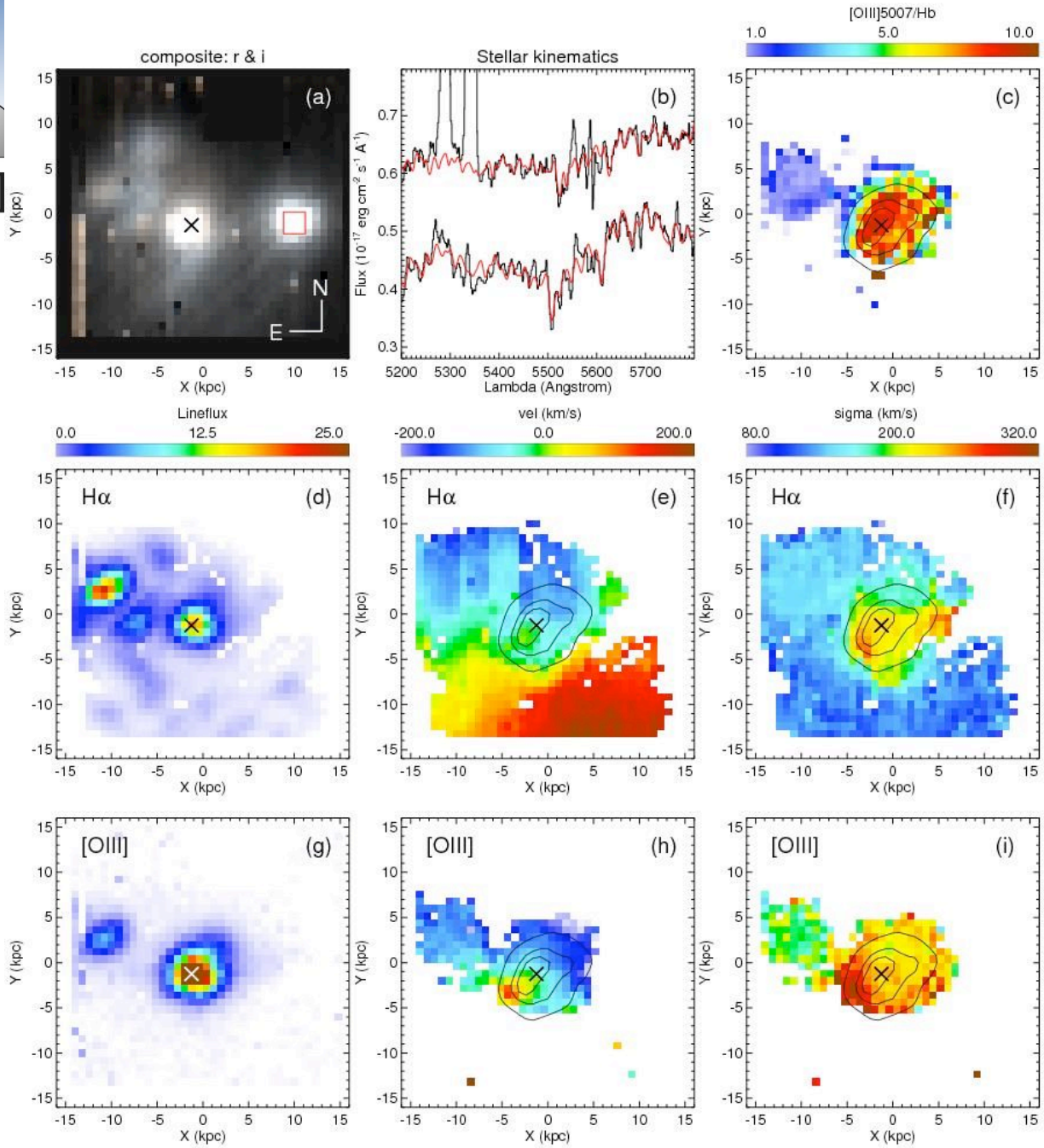


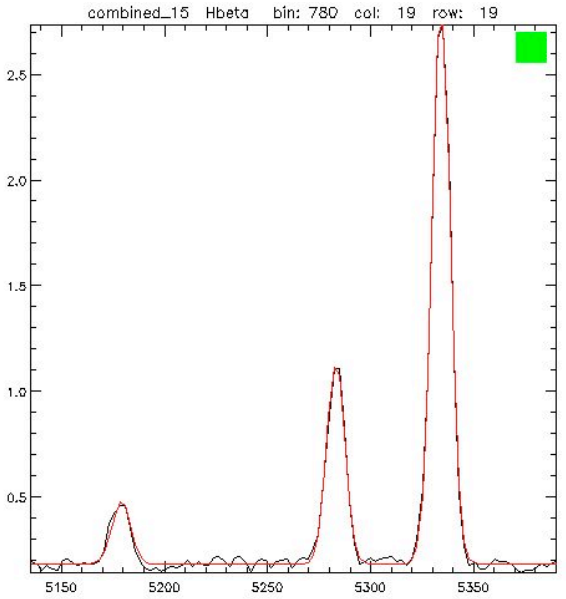


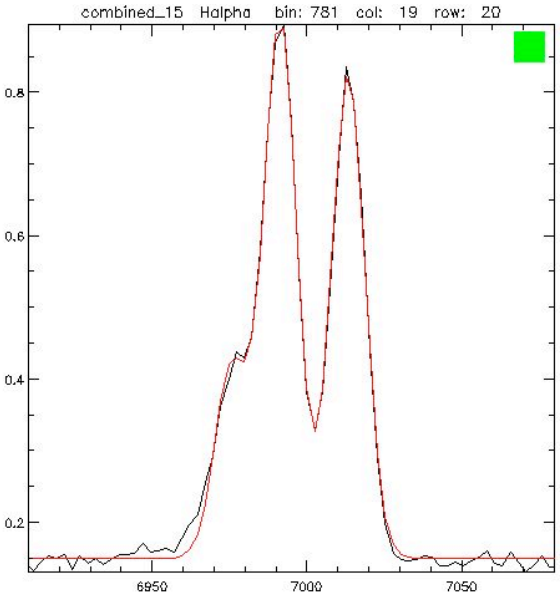
- Radio (unresolved) data indicates jet activity
  - Assume that it is aligned with ENLR
- Kinematic maps show components aligned with ENLR

- Correspondence suggests that the kin. features are triggered by interactions with radio structure
  - Which, in turn, could have been triggered by the interaction/merger

- Follow up:
  - spatially resolved radio data
  - stellar kinematic maps to constrain kin. perturbations


composite: r & i
(a)
N
E
Y (kpc)
X (kpc)
Stellar kinematics
(b)
Flux (10^{-17} erg cm^{-2} s^{-1} A^{-1})
Lambda (Angstrom)
[OIII]5007/Hb
1.0
5.0
10.0
(c)
Lineflux
0.0
12.5
25.0
Hα
(d)
vel (km/s)
-200.0
0.0
200.0
(e)
sigma (km/s)
80.0
200.0
320.0
(f)
[OIII]
(g)
(h)
(i)


combined_15 Hbeta bin: 780 col: 19 row: 19


combined_15 Halpha bin: 781 col: 19 row: 20