

## SEMINAIRE régulier du Service d'Astrophysique



### LA DYNAMIQUE DES GALAXIES JUSQU'A $Z \sim 1$

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**Jeudi 23 Novembre 2006**

**11h00**

*Many attempts had been done to estimate dynamical masses of galaxies at intermediate redshifts. They lead to Tully-Fisher relations with very large scatters, rendering uneasy further tests on the evolution of the relation between dark and visible matter.*

*The use of multiple integral field units such as the 15 IFU of FLAMES/GIRAFFE at VLT revolutionizes these investigations. This facility is able to recover the velocity fields of almost all the emission line galaxies with  $I(AB) < 22.5$ . It has been found that less than 40% of intermediate redshift galaxies are indeed rotating disks, producing a Tully-Fischer relationship (stellar mass or  $M(K \text{ band})$  versus  $V_{\max}$ ) which has apparently not evolved in slope, zero point and scatter, since  $z=0.6$ .*

*The very large scatters found in previously reported Tully-Fischer relationships at moderate redshifts are apparently due to the difficulty to identify the nature of velocity fields with slits.*

*The large fraction of complex velocity fields is suggestive of a large impact of merging in shaping the galaxies in the intermediate mass range.*

*I'll briefly discuss how this can be accommodated within the frame of current galaxy formation scenarios.*



**Un café sera servi 15 minutes avant le séminaire**

**Ce séminaire aura lieu au CEA Saclay – Orme des Merisiers – bâtiment 709, Salle 220.**