

# GIOVANNI CRESCI

## *Curriculum Vitae*

### **Contact Information:**

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### **Education:**

- 2006** *PhD in Astronomy*, Universita' degli Studi di Firenze, Italy  
Thesis Title: "Galaxy Morphology and Star Formation with Adaptive Optics";  
Advisor: Dr F. Mannucci, IRA-CNR Firenze
- 2002** *Laurea in Fisica*, Universita' degli Studi di Firenze, Italy;  
Thesis Title: "Obscured Supernovae revealed in the near-IR";  
Advisors: Dr F. Mannucci, IRA-CNR, Firenze;  
Prof. F. Pacini, Universita' di Firenze  
Final grade: 110/110 cum laude
- 1996** *Diploma di Maturita' Classica*, Liceo Dante, Firenze, Italy; final grade: 60/60

### **Position Held:**

- 2009 to date** Postdoctoral position at INAF – Arcetri Observatory, Italy
- 2006-2009** Postdoctoral Research Associate at Max Planck Institut fuer Extraterrestrische Physik, Garching, Germany,
- 2006-2006** Research contractat INAF/Osservatorio Astrofisico di Arcetri, Firenze, Italy
- 2003-2005** Graduate student at Universita' di Firenze, Italy

### **Fellowships and grants:**

- 2004** Grant from MPE, Max Planck Institut fuer Extraterrestrische Physik to work 1 year at MPE with R. Davies, M. Lenhart and R. Genzel on an Adaptive Optics survey of high redshift galaxies.
- 2003** PhD grant (3 years) from Universita' degli Studi di Firenze
- 2003** Grant from ESO, European Southern Observatory, to work 4 months in Santiago, Chile, with Leonardo Vanzani on the star cluster population local

dwarf galaxies

### **Scientific Activity:**

- 21 refereed papers in major peer reviewed journal (9 as first author), 855 citations in total; 5 additional papers submitted, 2 of which as first author
- 11 oral presentations at international conferences, 2 of which invited
- 7 invited seminars/colloquia
- More than 70 observing nights at international telescopes such as VLT, LBT, NTT, TNG and others
- Development of a data reduction pipeline for LUCIFER, the multi-object infrared spectrograph at LBT

### **List of refereed publications:**

1. Mannucci, F.; Cresci, G.; Maiolino, R.; Marconi, A.; Gnerucci, A., A fundamental relation between mass, SFR and metallicity in local and high redshift galaxies, MNRAS, in print
2. McLinden, E. M.; Finkelstein, S. L.; Rhoads, J. E.; Malhotra, S.; Hibon, P.; Richardson, M. L. A.; Cresci, G.; Quirrenbach, A.; Pasquali, A.; Bian, F., First spectroscopic measurements of [OIII] emission from Lyman-alpha selected galaxies at  $z \sim 3.1$ , astro-ph.1006.1895
3. Bouche', N., Dekel, A., Genzel, R., Genel, S., Cresci, G., Forster Schreiber, N.M., Shapiro, K., Davies, R., Tacconi, L., "The impact of a mass-dependent accretion on scaling relations, downsizing, and star formation history", 2009, ApJ, in print
4. Mannucci, F.; Cresci, G.; Maiolino, R.; Marconi, A.; Pastorini, G.; Pozzetti, L.; Gnerucci, A.; Risaliti, G.; Schneider, R.; Lehnert, M.; Salvati, M., "LSD: Lyman-break galaxies Stellar populations and dynamics – I. Mass, metallicity and gas at  $z \sim 3.1$ ", 2009, MNRAS, 398, 1915
5. Forster Schreiber, N. M.; Genzel, R.; Bouche, N.; Cresci, G.; Davies, R.; Buschkamp, P.; Shapiro, K.; Tacconi, L. J.; Hicks, E. K. S.; Genel, S.; et al., "The SINS survey: SINFONI Integral Field Spectroscopy of  $z \sim 2$  Star-forming Galaxies", 2009, ApJ, 706, 1364
6. Shapiro, K. L.; Genzel, R.; Quataert, E.; Förster Schreiber, N. M.; Davies, R.; Tacconi, L.; Armus, L.; Bouché, N.; Buschkamp, P.; Cimatti, A., Cresci, G. et al., "The SINS Survey: Broad Emission Lines in High-Redshift Star-Forming Galaxies", 2009, ApJ, 701, 955
7. Burkert, A.; Genzel, R.; Bouche, N.; Cresci, G.; Khochfar, S.; Sommer-Larsen, J.; Sternberg, A.; Naab, T.; Foerster-Schreiber, N.; Tacconi, L., et al., "High-Redshift Star-Forming Galaxies: Angular Momentum and Baryon Fraction, Turbulent Pressure Effects and the Origin of Turbulence", 2009, ApJ in press, astro-ph:0907.4777

8. Cresci, G., Hicks, E., Bouche', N., Foerster-Schreiber, N., Genzel, R., et al., "*The SINS survey: modeling the dynamics of  $z \sim 2$  galaxies and the high- $z$  Tully-Fisher relation*", 2008, ApJ, 697, 115
9. Genel, S.; Genzel, R.; Bouché, N.; Sternberg, A.; Naab, T.; Förster Schreiber, N. M.; Shapiro, K. L.; Tacconi, L. J.; Lutz, D.; Cresci, G.; et al., "*Mergers and Mass Accretion Rates in Galaxy Assembly: The Millennium Simulation Compared to Observations of  $z \sim 2$  Galaxies*", 2008, ApJ, 688, 789
10. Genzel, R., Burkert, A., Bouche', N., Cresci, G., et al., "*From rings to bulges: evidence for rapid circular evolution at  $z \sim 2$  from SINS integral field spectroscopy*", 2008, ApJ, 687, 789
11. Shapiro, K.L., Genzel, R., Foerster-Schreiber N., Tacconi, L.J., Bouche', N., Cresci, G., Davies, R., et al., "*Kinometry of High-redshift star-forming galaxies: distinguishing rotating disks from major mergers*", 2008, ApJ, 682, 231
12. Vanzi, L., Cresci, G., Telles, E., Melnick J., "*Integral Field Near-IR Spectroscopy of II Zw 40*", 2008, A&A, 486, 393
13. Bouche, N.; Cresci, G.; Davies, R.; Eisenhauer, F.; Forster Schreiber, N. M.; Genzel, R.; Gillessen, S.; Lehnert, M.; Lutz, D.; Nesvadba, N., et al., "*Dynamical Properties of  $z \sim 2$  Star forming Galaxies and a Universal Star Formation Relation*", 2007, ApJ, 671, 303
14. Cresci, G., Mannucci, F., Della Valle, M., Maiolino, R., "*A NICMOS search for obscured Supernovae in starburst galaxies*", 2007, A&A, 462, 927
15. Cresci, G., Davies, R., Baker, A., Mannucci, F., Lehnert, M., Totani, Minowa, Y., "*Galaxy morphology and evolution from SWAN Adaptive Optics imaging*", 2006, A&A, 458, 385
16. Cresci, G., Davies, R., Baker, A., Lehnert, M., "*Accounting for isoplanatic PSF in deep wide field Adaptive Optics images*", 2005, A&A, 438, 757
17. Cresci, G., Vanzi L., Sauvage, M., "*The star cluster population of NGC 5253*", 2005, A&A, 433, 447
18. Mannucci, F., Della Valle M., Panagia N., Cappellaro E., Cresci G., Maiolino R., Petrosian A., Turatto M., "*The supernova rate per unit mass*", 2005, A&A, 433, 807
19. Cresci, G.; Maiolino, R.; Marconi, A.; Mannucci, F.; Granato, G. L., "*Nuclear star formation in the quasar PG1126-041 from adaptive optics assisted spectroscopy*", 2004, A&A, 423L, 13
20. Mannucci, F.; Maiolino, R.; Cresci, G.; Della Valle, M.; Vanzi, L.; Ghinassi, F.; Ivanov, V. D.; Nagar, N. M.; Alonso-Herrero, A., "*The infrared supernova rate in starburst galaxies*", 2003, A&A, 401, 519
21. Maiolino, R.; Vanzi, L.; Mannucci, F.; Cresci, G.; Ghinassi, F.; Della Valle, M. "*Discovery of two infrared supernovae: A new window on the SN search*", 2002, A&A, 389, 84