

Figure 6. Optical spectra of DTF F150m and the nearby galaxy SSSS 714-204.57=1.5469.3 (°C27). Spectra on the left panel have been uncoched with a Smitzky-Colory thee Out minks 2000 spectrum of the sheep good pull panel, those scalebase a largery interactions the continuous. A higher SSV spectrum takes the following panel with DAGA of the panel pa

clear whether this energy difference is due primarily to the release of fees relativistic ejectably the bust overall, a wide reje, or a partially off-axis view of a structured jet. Late-time radio follow-up should help distinguish these models: an intimistically low-energy GRB should produce a much earlier jet brask than a widely-beamed burst, while a structured jet will actually produce an increase in flux at late times a stu-jet core

(A color version of this figure is available in the online journal.)

spreads and its radiation enters our sightline. Events with similar energetic have been found by $Sw(\theta, a_g, GRB 050826$ at z = 0.5 and GRB 120422 at z = 0.5 (Mrable et al. 2007; Zhang et al. 1021; However, given their low intrinsic luminosities and higher redshift, the afterglows were too finit to dendry late-tune breaks and established inches energies E_g , making them difficult to physically instructions. Our observations should be considered to the continuation of the c

cal GRBs and relativistic Type Ic supernovae (e.g., Soderberg

similarly coarse position reconstruction. Later this decade, a network of advanced gravitational wave (GW) detectors including the Laser Interferometer GW Observatory (LIGO) and Virgo is expected to detect ~-0.4—400 binary neutron star mergers per year (Abadie et al. 2010), but with positions uncertain to tens to hundreds of deg² (Fairhurst 2011; Nissanke et al. 2011; Aust et al. 2013).

et al. 2011; Assi et al. 2013.
Optical counterparts to GW sources will rarely (due to jet collimation) include bright, on-axis short-hard burst affections. Finiter process-finited knowase (Lie & Paccysiak; 1998) or yet finites off-axis afterglows (Robods; 1997) are expected to accompany binary neutron star mergers. Both of these signatures are predicted to be several magnitude finites than 1971 1934. Optical searches will be immodated with antophysical finite pointree (Neissanke et al. 2013). This problem will only be exacerbated for finites surveys covering larger areas (e.g., Zwicky Tinanient Facility; Kolkami 2014). Bellescope, Trans (2003). Hories, Lung Sympoly Charles (1994). The control of the co