(D1) Dust and Young Stars in Galaxies

(D1.1.1) The UV slope of such a typical galaxy is ____ ;

(D1.1.2) See *Figure 1*;

(D1.1.3) The UV slope of *CR7* is ____ ; [YES] or [NO]? ____ ;

(D1.2.1) See *Figure 2*; The best-fit Equation is:

____ ;

(D1.2.2) The dispersion is ____ dex;

(D1.3.1) A_{1600} as a function of IRX:

____ ;

(D1.3.2) See *Figure 3*; The Best-fit Equation is:

____ ;

(D1.3.3) Expected UV slope of a dust-free galaxy: ____ ;

(D1.4.1) The IRX of *CR7* is ____ ;

Here the value is a ____ limit (please fill with [upper] or [lower]);

(D1.4.2) Is the current observation deep enough ([YES] or [NO])? ____ .

(D2) Compact Object in a Binary System

(D2.1.1) The maximum acceleration is ____ km/s/day;

(D2.1.2) Estimate for the mass of the companion: ____ $M_\odot$;

(D2.2.1) See *Figure 4*; $P_{orb} =$ ____ ; $K =$ ____ ;

(D2.2.2) $f(M_1, M_2) =$ ____ $M_\odot$;

(D2.3.1) $\sin i =$ ____ ; $R_1 =$ ____ $R_\odot$;

$L_1 =$ ____ $L_\odot$; $M_1 =$ ____ $M_\odot$;

(D2.3.2) The type of this star should be ____ ;

(D2.3.3) See *Figure 5*;

(D2.3.4) The possible mass of the unseen companion is ____ $M_\odot$;

It could be a ____ .