

Useful Tables

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March 14, 2014

x	y
$a_{11} = 0.9870$	$a_{21} = 0.0310$
$a_{12} = -0.0475$	$a_{22} = 0.9894$
$x_0 = 518.3470$	$y_0 = 543.8757$

Table 1: Table template.

	x	y
rms error	0.663	0.543

Table 2: Table template.

$R=(0.9077, 0.3767, 0.1633)$	
ρs in AU	r in AU
2.2079	2.4182

Table 3: Table template.

Information Table		
	X Centroids	Y Centroids
Day 16	450.615	496.533
Day 17	480.865	503.094
Day 21	394.670	581.800
Day 16	$s=(0.39557559, -0.90165076, -0.17477377)$	
Day 17	$s=(0.40000113, -0.89947704, -0.1758981)$	
Day 21	$s=(0.41846033, -0.8902056, -0.18006928)$	

Table 4: Table template.

Nominal Properties of Spectrometer

Quantity	Result
Echelle grating groove density ($1/\sigma$)	80 mm^{-1}
Echelle blaze angle (θ_b)	64.4°
Fiber diameter (d_{fiber})	$50 \text{ }\mu\text{m}$
Collimator focal length (f_{col})	100 mm
Camera focal length (f_{cam})	135 mm
Apogee CCD pixel size	$13 \text{ }\mu\text{m}$
2θ	22°

Table 5: Table template.

Result of Calculated Quantities for $\lambda = 632.8 \text{ nm}$

Properties	Values
Order of Interference	$m = 35$
Resolution related to optical fiber	$2.1951812525 \text{ pixels}$
Spectral dispersion	$0.121331883387 \text{ nm/pixel}$
Spectral Resolving Power	14058.352926
Spectral Resolution	$21.3396264541 \text{ km/s}$
Width of order on CCD in nm	$0.454688925737 \text{ nm}$
Width of order on CCD in pixels	$3.74748098391 \text{ pixels}$

Table 6: Table template.

Result of Graph Analysis

Properties	Values
Spectral dispersion	$0.028074 \text{ nm/pixel}$
Width of order on CCD in nm	0.0678826 nm
Width of order on CCD in pixels	2.418 pixels

Table 7: Table template.