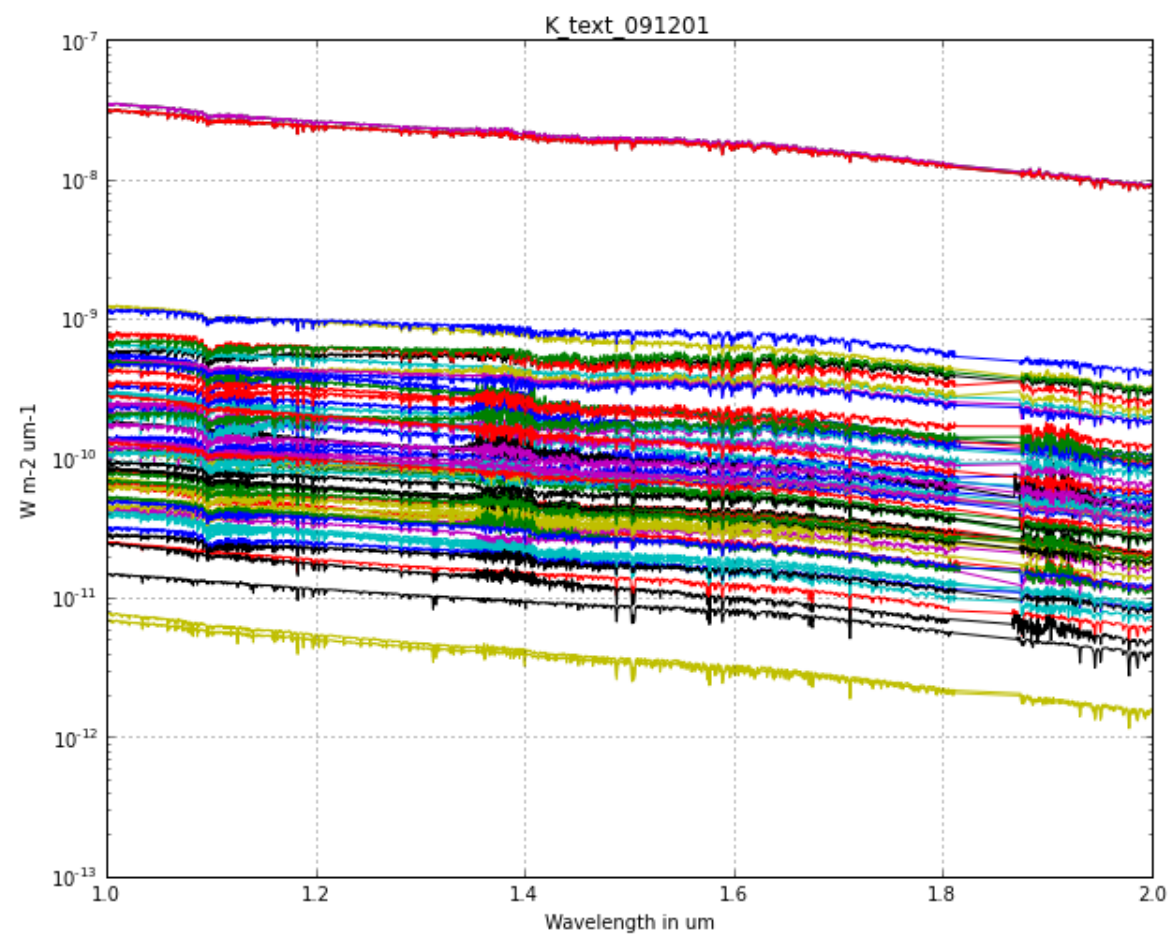
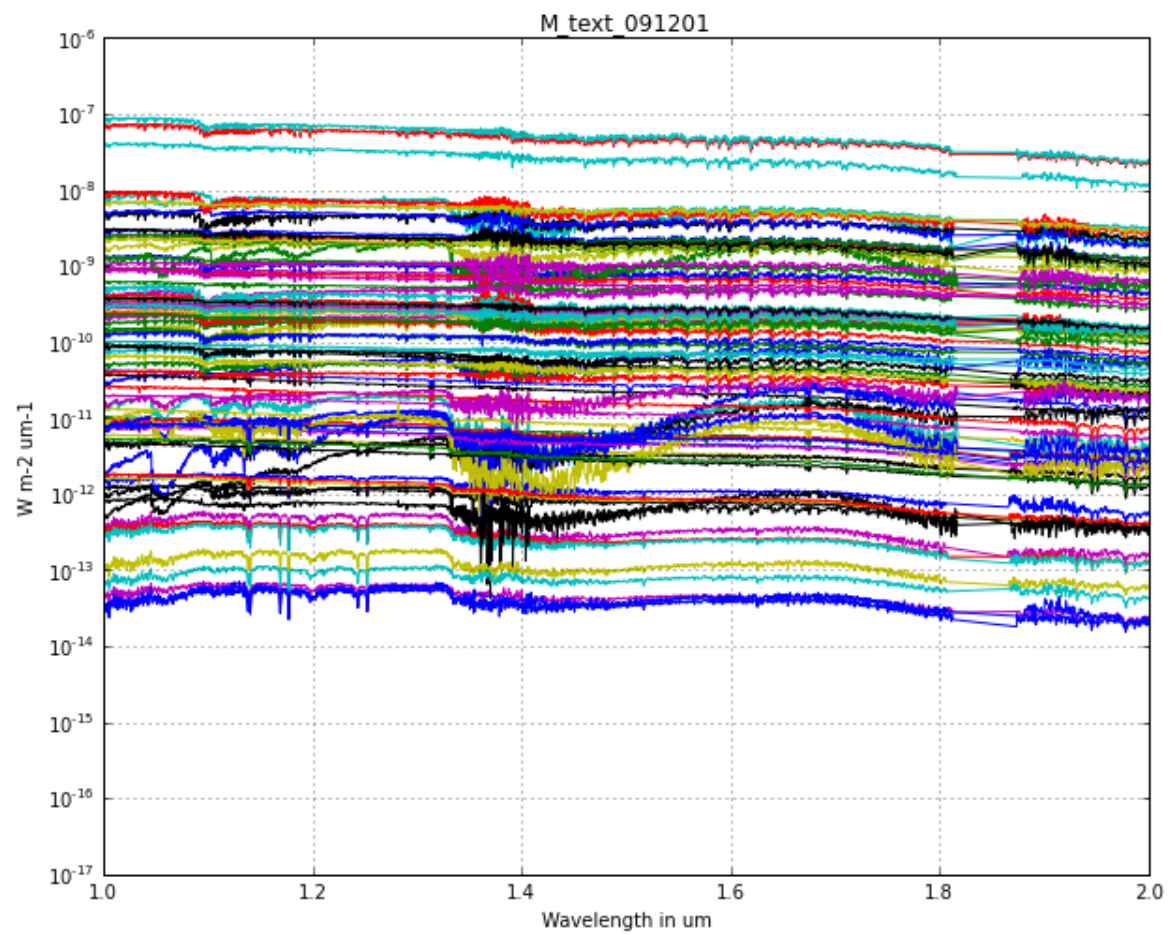


# K star spectra



# M star spectra



# Notes

- sources brighter than magnitude 6 would saturate in less than 1 frame ( $\sim 1.4\text{s}$ )
- simulation only of sources with  $\text{mag J EUCLID} > 6$

## Additional simulations

- flux renormalization  $\text{mag J EUCLID} = 10$ , around  $10000\text{e}^-/\text{pix}$  with exposure time  $14\text{s}$  (10 frames)
- simulation of all sources

# MPRD-like configuration

[http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR) ([http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR))

<b>collecting area</b>	10066.0 cm <sup>2</sup>	<b>number of detector</b>	4x4
<b>grism</b>	Gred 0deg (12500<lambda<18500 A)	<b>gap in the X direction</b>	3mm + 8 pixels (ref pixels)
	Gred 90deg (12500<lambda<18500 A)	<b>gap in the Y direction</b>	6mm + 8 pixels (ref pixels)
	Gred 180deg (12500<lambda<18500 A)	<b>field of view limit</b>	5mm
	Gblue (9500<lambda<12500 A, not used in wide survey)	<b>number of pixel</b>	2040x2040 pixels for each detector
<b>dispersion</b>	13.4 Angstrom/pixel (constant)	<b>pixel size</b>	18um
<b>PCE</b>	see transmission plot	<b>pixel scale</b>	0.3 arcsec
<b>PSF EE50</b>	0.355 arcsec	<b>readout noise</b>	6e-/pix
<b>PSF EE80</b>	0.684 arcsec	<b>dark current</b>	0.1 e-/s/pix
<b>sky background</b>	1.0 e-/s/pix	<b>quantum efficiency</b>	see transmission plot

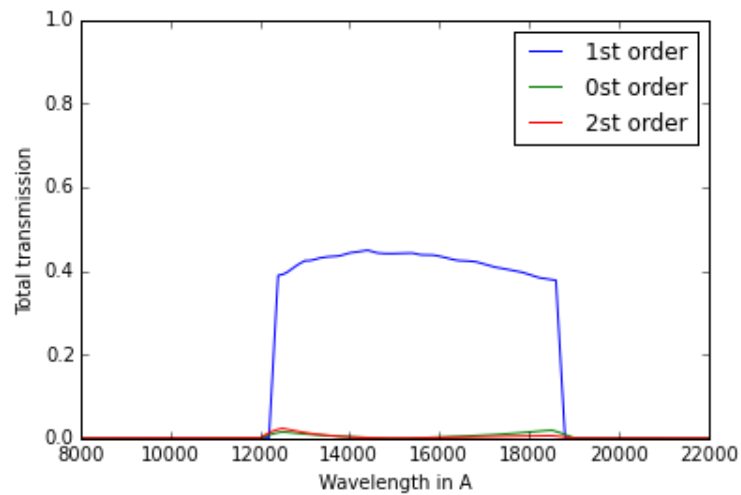
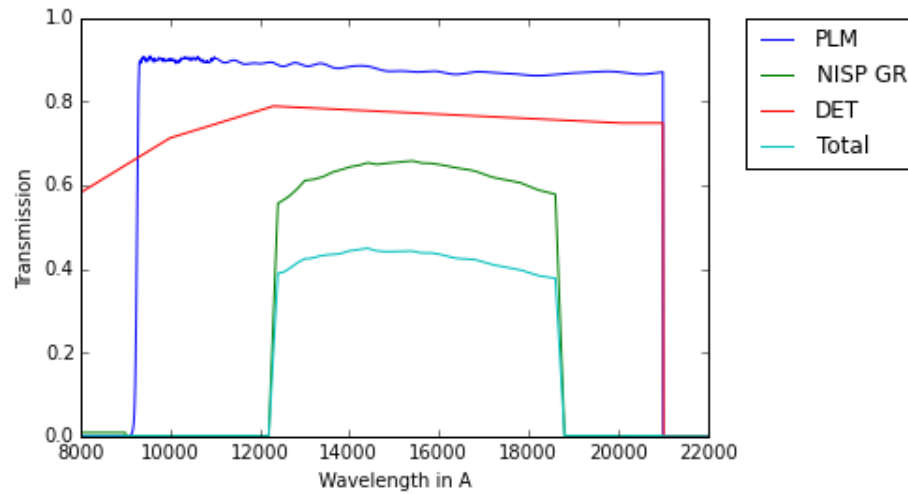
# MPRD-like configuration

[http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR) ([http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR))

- No distortion
- No straylight
- No Persistence
- Double gaussian PSF

# MPRD-like configuration

[http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR) ([http://euclid.roe.ac.uk/projects/ousim\\_tips/wiki/Mission\\_PDR](http://euclid.roe.ac.uk/projects/ousim_tips/wiki/Mission_PDR))



# Simulation products

- fits files 2 extensions
  - hdu 0 [SCI] : stamp image of the first grism order in e-/pix
  - hdu 1 [ERR] : stamp image of the error
- to build the 1d spectra you can simply stack pixels along y axis (no tilt, no distortion)
- files \*\_ET##.fits are sources with mag J > 6
  - ET## is the exposure time in second
- files \*\_mag10.fits are sources renormalized to mag J = 10 with exposure time of 14s

