Quasar Microlensing: How to do simulations!

1) copy file Wambsganss-MicrolensingCode-Zurich-2013.tar to your disk

2) untar this file ... should produce directory:

Wambsganss-MicrolensingCode-Zurich-2013

3) cd Wambsganss-MicrolensingCode-Zurich-2013; cd cfitsio

4) ./configure (within subdirectory cfitsio)

5) make (still in subdirectory cfitsio)

6) cd .. (now in directory Wambsganss-MicrolensingCode-Zurich-2013)

7) make (should produce executable "microlens")

8) run the program by typing: ./microlens

9) newly produced files:

dat.401	log-file
IRIS401	magnification pattern (unformatted)
IRIS401.fits	magnification pattern (FITS format)

10) display magnification pattern within IDL (first: start "idl"): .rnew dis_1000

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11) in order to extract a lightcurve: compile lightcurve.f

(I use: gfortran lightcurve -o lightcurve)

12) run lightcurve routine:

./lightcurve

13) output produced:

out_line (lightcurve data, pixels convolved with source profile)

IRIS401-track (magnification pattern WITH track marked)

14) display magnification pattern with track AND lightcurve (from inside IDL):

.rnew dis_light

15) modify file *input* for next run of "microlens" ...

(e.g., replace nray = "20" by "100") ... and run it again!