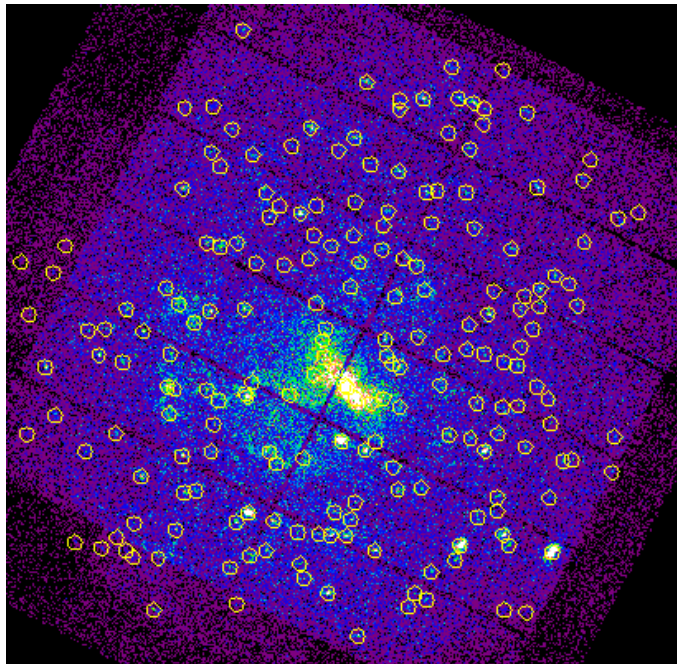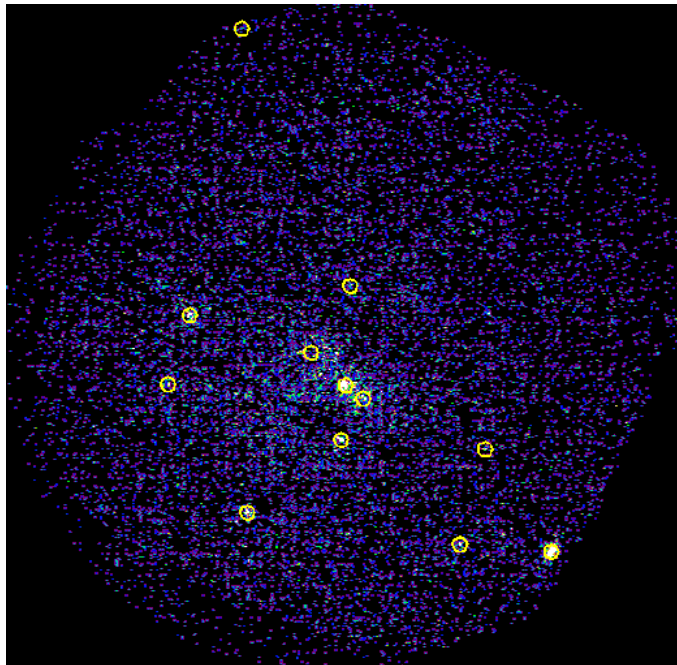# Transient algorithm

- For each observation, **source detections** are performed on images integrated on a short **time interval** (e.g. 1000 s) and results compared with the reference source list for the full observation (typically 5,000 – 130,000 s), searching for new point sources
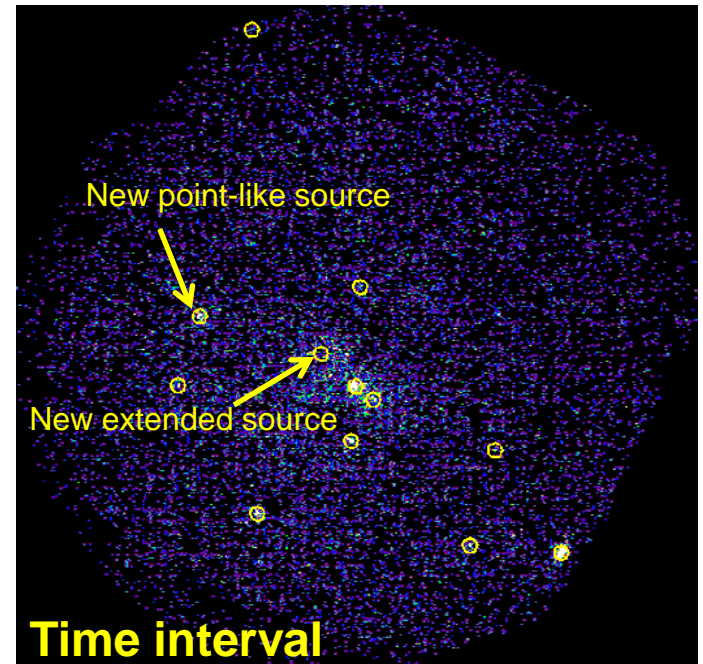
Transient algorithm

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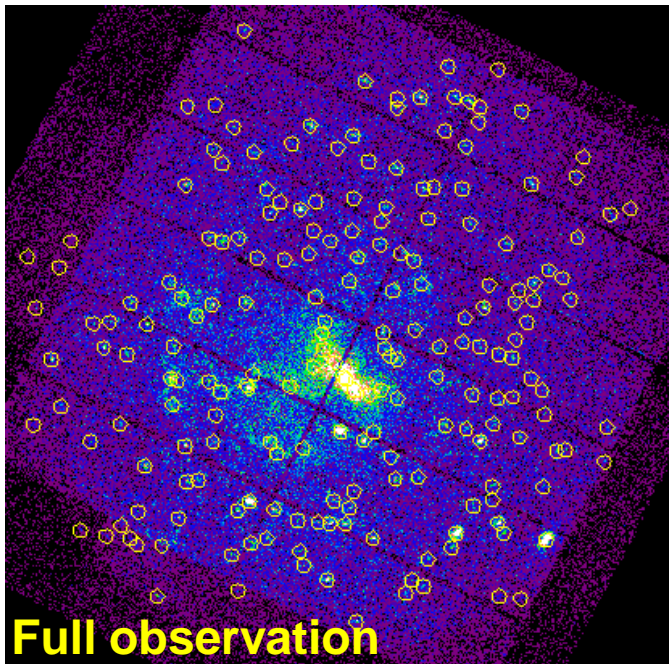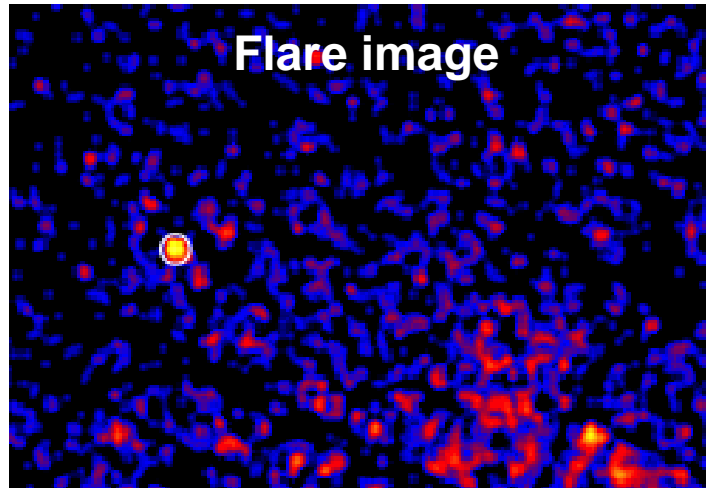
Transient algorithm

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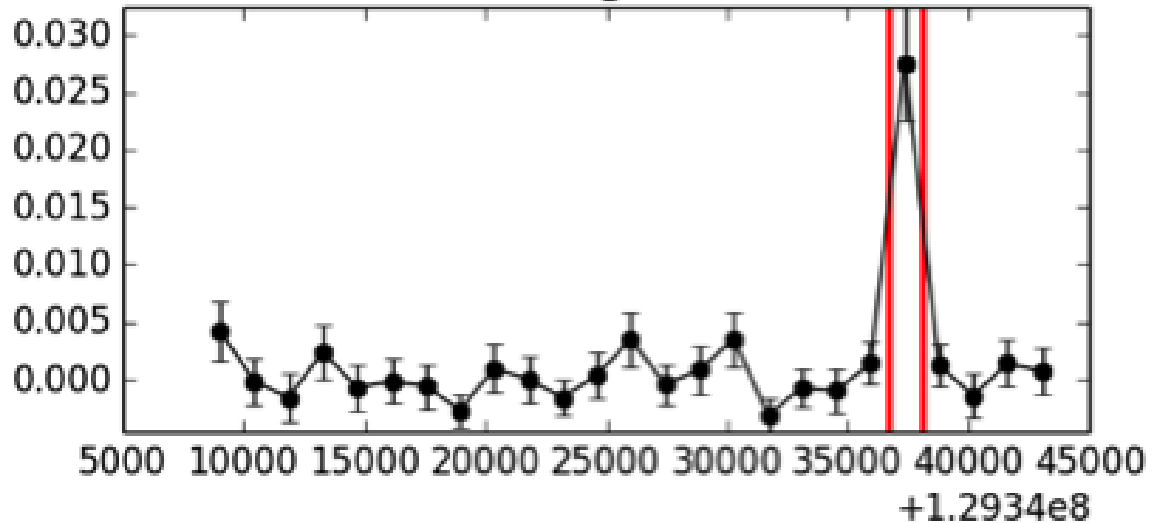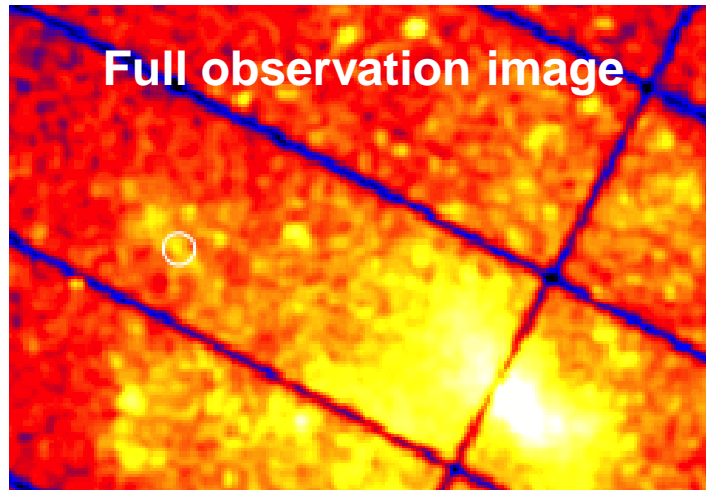
Full observation

New point-like source
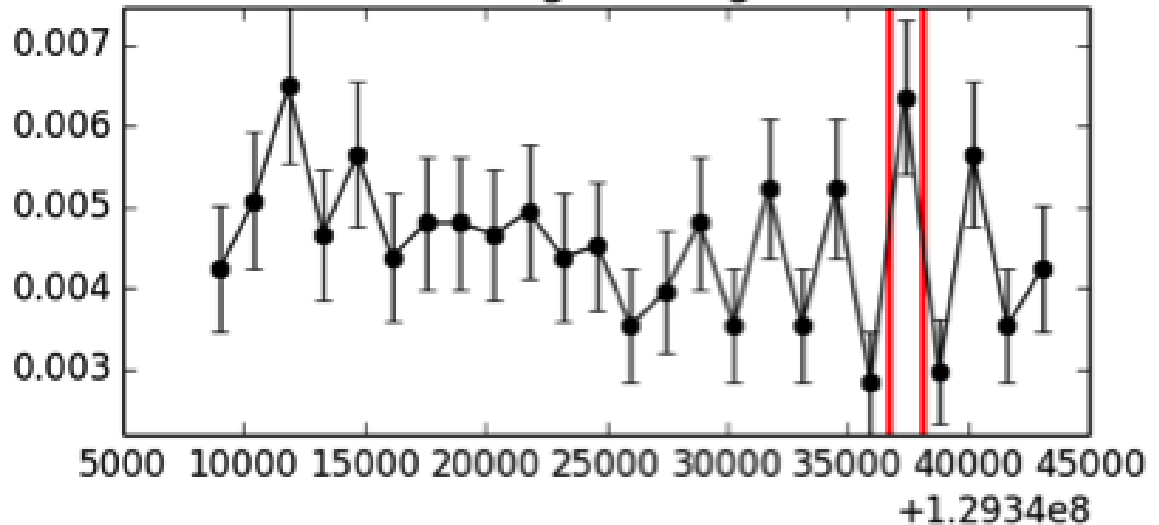
New extended source

Time interval

Images and lightcurve

Examples

- 0051550101: trans21

- 0011420201: trans3, trans5

- 0008820401: trans6

- 0028740201: trans1

- 0200480201: trans2

- 0143652301: trans5

- 0109270301: trans1

QUESTIONS

1) Is the transient candidate a real transient X-ray source?

2) Is it a new X-ray source?

3) Has it a possible counterpart at other wavelengths (e.g. in optical)?

4) What kind of astrophysical object or phenomenon might it be?

5) Might it be an important scientific discovery?

Virtual Machine

- User name: **extras**

  Password: **EXTraS_user_2015**

    [**EXTraS?user?2015** if Italian keyboard]

- To unlock the screen: **click and drag up**, and [if Italian keyboard] type: **EXTraS_user_2015**

- **Terminal** and **web browser** in "Applications" menu

- *Copia* = **ctrl+c**. *Incolla* = **ctrl+v**

- Download file with instructions:

  `http://www.iasf-milano.inaf.it/~tiengo/EXTraS/CookBook.txt`