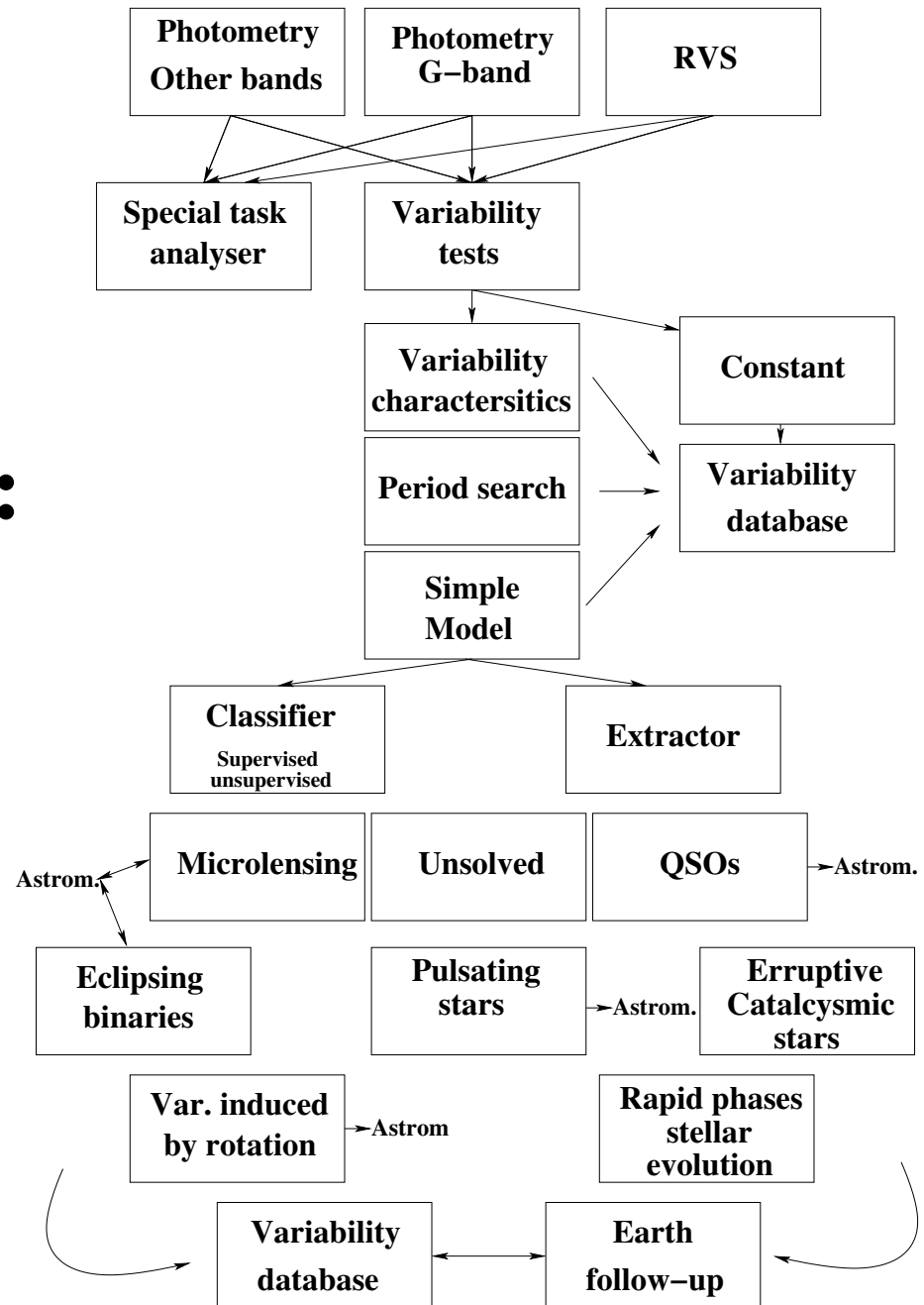


WORK BREAKDOWN FOR THE VARIABILITY ANALYSIS

LAURENT EYER
OBSERVATOIRE DE GENÈVE
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ORGANOGRAM:



WORK PACKAGES-I

WP1000 Architecture development

WP1100 Detection of variability

- WP1110 photometry (G, BBP, GS, MBP)

- WP1120 spectroscopy

- WP1130 Study of constant objects

WP1200 Special task analyser

- WP1210 Detection of transits of planets

- WP1220 Detection of extremely short periods (per CCD photometry, ZZ Ceti etc..., binary WD)

- WP1230 Other (e.g. periodic small amplitudes var.)

WP1300 Characterisation of variability

- WP1310 magnitude of variability

- WP1320 Time scale, period searches

WP1400 Classification

- WP1410 global classification

 - WP1411 supervised

 - WP1412 unsupervised

- WP1420 variable extractor (specific types)

WORK PACKAGES-II

WP1500 Specific objects

-WP1510 Pulsating

-WP1511 Specific objects (delta Scuti, ...)

-WP1512 Multiperiodicity

-WP1513 Period / Amplitude changes

-WP1514 Instability regions in HR diagram

-WP1515 Metallicity and pulsation

-WP1516 Standard candles (period-luminosity relations, ...)

-WP1517 Pulsation in double / multiple system (eclipsing binaries)

-WP1518 Asteroseismology

-WP1520 Eclipsing (F.Arenou)

-WP7100 Detection of eclipsing Binaries

-WP7200 Light-curve analysis

-WP7300 Eclipsing spectroscopic Binaries

-WP7400 Timing Binaries

-WP7500 Eclipsing Binaries with variable component

-WP7600 Variable Eclipsing Binaries in multiples

-WP1530 Rotating

-WP1540 Errupting

-WP1550 Cataclysmique

-WP1560 Microlensing

-WP1570 QSO

-WP1580 Other

WORK PACKAGES-III

WP1600 Variability-Astrometry

WP1700 Variability database

WP1800 Comparison with other surveys (COROT, Kepler, PAN-STARRS)

WP1900 Ground based observations (simultaneous, follow-up)

SPECIFICITY OF VARIABILITY ANALYSIS

Make FULL use of Gaia data

- Trigger of variability analysis (photometry, RVS)
- We need to combine data G, BBP, GS, MBP, RVS and Astrometry
- To deliver data when possible

PROCEDURE

- Every n (e.g. $n=3$ or 6) months we compute solutions, classification
- Then perform a full analysis
- Decide what can be announced, delivered to public
- Populate a database

IMPORTANCE OF SCIENTIFIC PARTICIPATION

- We should not limit on data processing
- Scientific questions have also to be at the base
- Then think if that requires special data processing



Scientific working group on variability
(not only on variable stars)

LOI OF GENEVA

Geneva Obs/ISDC proposed to be responsible for the variability analysis (from a broad point of view)

- FTE: up to 10 according to the needs
- Experience, Software, Hardware expertise

Tight collaboration with

- knowledgeable groups
- groups willing to participate to the data processing

Fears:

- responsibility too dispersed
- visibility for those who are really doing the work