

VEGA Annual meeting 2017. 16/17 Jan 2017, Nice

Summary of conclusions and future actions

1. Season 2016

- a. We will implement in 2017 a better statistics on the time lost during observations (weather, technical CHARA, technical VEGA, others...).
- b. We note that different approaches are considered for deciding or not to continue observing depending on the seeing conditions. It may be useful to define some general rules to share.

2. Season 2017

- a. Some nights are not yet covered in April, at the end of the run.
- b. New programs: HD62623 (Anthony), kappa Dra (Florentin) +FRIEND+LABAO (Marc-Antoine).

3. Science progress

- a. Synthesis presented and discussed (see slides). Classification with four categories: 1) ongoing programs, 2) programs in analysis phase, 3) programs in standby and 4) programs in difficulty. This will be the basis of the science animation activities of the group during the year as well as the definition of priorities for new observations.
 - i. *Ongoing programs: V01, V16, V43, V50, V52, V65a, V65b, V66, V67, V68*
 - ii. *Analysis phase: V00(Nova), V11, V12, V23, V43, V55, V58, V62*
 - iii. *Standby programs: V02, V05, V03, V27, V30, V48, V61, V64*
 - iv. *Difficulties: V45, V57, V60*
- b. V50 (metal poor), V43 (seismic targets): good progresses, many stars in parallel. Already a good set is available.
- c. V43-HR7349: additional data have been acquired and processed: Final work now on the analysis and publication (Lionel)
- d. V67 (seismic giants): in conjunction with K2 observations; nice comparisons between PAVO and VEGA. Systematics analysis among the CHARA instrument.
- e. V01 (host stars): new focus on transiting exoplanets.
- f. V58: gam Cas: processing in progress.
- g. V16 (ro Ap), including also the special attempts on eps Uma (HR).
- h. V12 (YSO): no new data. Multiwavelengths approach is considered for the future. Differential and AO with VEGA to be tested.
- i. V45 (Pleiades): data analysis done
- j. V62 (omi Aqr): 1st priority for Elisson in terms of modeling and analysis.
- k. V64 (HD177724): no data in 2016 and 2017: program in standby
- l. V65 (kappa Dra): bad data in 2016. Will start again in 2017
- m. V66 Be survey: already 22 stars observed; validation of data to be concluded; modeling by Elisson (2nd priority)
- n. V00 Nova 2013: convincing data and small effort to be done on a simple toy-model for the asymmetry considered in $V^2(t)$ and VisDiff. Advanced draft exists.
- o. V11 bet Lyrae: development of the modeling with shellspec. All data processed, analysis in progress: continuum first and lines after that.
- p. V52 Cepheids: data ok for eta Aql. T Vul in progress: same strategy as for del Cep.
- q. V23 theta OriC: data processing in progress.

4. VEGA&MSIP open time – SPICA perspectives

- a. Control software: some evolutions of the VEGA control software are presented by Jean-Michel. The development is considered in the first part of the year with progressive implementation and tests. With the simplifications that are considered we should however continue to control the position of the (reimaged) VEGA pupils on the axis, critical for VEGA (minimizing visibility loss) (ASPRO2/CHARA... to be discussed/decided).
- b. Preparation tools: discussion on a possible evolution of PIVOT/ASPRO2/Control software for simplifying the concept of starlist files. A discussion will be organized at the JMMC/ASPRO2 group level + an initial specification will be developed by JMC+DM to be discussed with the CHARA group. For SPICA a better specification of the operating mode is needed to correctly specify the evolution of the preparation tools. The notion of preparation + management of interferometric programs is however more and more important (multi-period, large samples etc...).
- c. Processing: synthesis of the feedbacks + propositions.
 - i. Simplifications will be implemented soon (e.g. change of default settings of the GUI)
 - ii. It appears that it is probably possible to improve the quality of the automatic processing for V^2 measurements with 'automatic' settings.
 - iii. Different solutions have been developed to overpass the VEGADRS GUI for the generation of the cmd files and the execution of the scripts. To be discussed in more details for possible implementation.
 - iv. It is proposed to develop a python prototype of the Nicolas's tool (vizationalization of raw visibilities along the night and data flagging) and to discuss it more widely with other instrument groups with the idea of developing a generic tool for V^2 calibration purpose.
 - v. The conf files should be also duplicated with raw oifits files for a better portability/compatibility.
 - vi. Implement the new OIFITS2 norm: OI-SPECTRUM and OI-VIS.
- d. Model fitting: presentation of the work in progress on LITpro, on two axis: the fitters & the user modeling functions.

5. FRIEND and SPICA (not included here)