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## [Iptfgeneral] Fwd: [ZTF] ZTF partnership survey planing: call for White Papers

Ariel Goobar <ariel@fysik.su.se>  
To: iptfgeneral@lists.astro.caltech.edu

Wed, Nov 23, 2016 at 6:27 AM

Dear colleagues,

it has come to my attention that the message below (distributed through 'ztfgeneral') has not reached all ZTF partnership members. Hopefully, this channel will solve the distribution problem. Apologies to those that get this for a second time.

Ariel

----- Forwarded Message -----

**Subject:**[ZTF] ZTF partnership survey planing: call for White Papers

**Date:**Fri, 11 Nov 2016 16:42:57 +0100

**From:**Ariel Goobar <ariel@fysik.su.se>

**To:**ztfgeneral@lists.astro.caltech.edu <ztfgeneral@lists.astro.caltech.edu>

Dear ZTF partners,

the ZTF Experiments & Framework committee (EFC) is hereby issuing a call for white papers (WPs). The aim is to identify the high-level scientific goals to guide the design of the P48 ZTF survey (cadence, pointings and filter choices) to be carried out in the 40% share of the partnership. The remaining time of the P48 ZTF survey is shared between MSIP (40%) and Caltech (20%).

The partnership controls 65% of the P60 time.

The WPs, aimed at *focused* science goals, *should be submitted by January 31*, on the ZTF Twiki ([http://www.oir.caltech.edu/twiki\\_ptf/bin/view/ZTF/ScienceWhitePapers](http://www.oir.caltech.edu/twiki_ptf/bin/view/ZTF/ScienceWhitePapers)) and use up to 4 pages (minimum 11pt font) to cover 5 sections:

### Section 1: The scientific motivation of the project

- 1.1 Outline of the goals and competitiveness of ZTF for the project.
- 1.2 Specify the figures of merit upon which the success of project should be judged (e.g., how many targets, how many spectra, S/N, etc.).
- 1.3 For science cases requiring real-time discovery from the image differencing stream, specify what queries will be used to cull the specific transient events from many thousands of candidates (most real plus some artifacts) from the treasures portal.  
To what extent does the project require human scanning?

### Section 2: Proposed observations

- 2.1 Specify and motivate choices of pointings, cadence and filters, clearly indicating priorities among these choices. Proposers may assume

that for a limiting magnitude  $\sim 20.5$  (30 sec exposures), 3380 sq. deg can be imaged in one hour (single band, including OHs). Weather losses

may be included by assuming that nights are 6 hs long, on average.

- 2.2 Indicate the sensitivity of the expected science for calibration and variations in cadence and filters. If applicable, provide acceptable ranges for relevant survey parameters.

- 2.3 Specify suitable periods for the observations, if applicable.

### **Section 3: Supporting observations**

- 3.1 Specify need for photometric follow-up (filters, telescope size, total time needed). Which telescope(s) can/will be used?

- 3.2 Can any of the cadence/filter requirements be relaxed with more use of other telescopes? Comment on feasibility.

- 3.3 Specify the need for spectral classification, indicating spectral resolution and calibration accuracy needed. What resources are available? Please indicate expected usage of SEDM time.

- 3.4 Indicate any other external resources (e.g., radio, X-ray) needed to carry out project, as well as the steps needed to secure these additional resources.

### **Section 4: Expertise to undertake project**

- 4.1 Specify the expertise needed to achieve scientific goals and how well they are met by the proposing partners. If help from

external collaborators is required in any step, please identify these.

- 4.2 Specify tools required to deliver science products.

### **Section 5: Manpower and time-line**

- 5.1 Specify the people that will carry out the project as well as milestones for the publication plan.

- 5.2 Is this a thesis project? If so provide name(s) of student(s).

Please note that the invited white papers are not intended to set priorities among partners within specific projects. Please, seek broadest possible support for common science goals rather than submitting multiple WPs on the same science.

We encourage partners to submit letters of intent by the upcoming meeting at Caltech, so that broader constellations may be formed well ahead of the WP dead-line. A strong turnout at the forthcoming meeting is essential to both discuss ideas, and to make progress on the many challenging remaining technical issues that must be resolved for the science projects to become feasible.

Reviewing procedure: the WPs will be assessed by the Experiment & Framework committee, with the aim at coming up with a survey strategy that meets most (if not all) the proposed science goals. The report from EFC will be sent to the PI and the ZTF Science Board, who will decide on the partnership survey strategy.

Ariel Goobar, on behalf of the Experiment & Framework committee

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