

| Strengths                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Weakness                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <p>The observing strategy is well-tested and the team has experience in these kind of data. Constraints on the nature of the 1A 0538 ? 66 transient can be important for our understanding of accretion onto neutron stars. REM is the ideal monitoring instrument for a target of this kind.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>The improvements that can be obtained on the light curve of the object are not well defined. In fact, there appear to be already enough data to constrain the short- and long-term variability patterns, so the only goal of the proposal seems to be the detection of bright flares. However, it is not possible to estimate if a bright optical flare connected to a bright X-ray outburst to be followed-up by XMM will happen during the AOT39 period.</p> |
| <p>The proposal continues previous observations of the transient 1A0538-66, accomplished also with REM. The interest is well motivated and the experience of the team ensures a proper and fast treatment of the data. The novelty of the proposal with respect the previous REM data is the synergy with X-ray data, that will improve the knowledge about Be/X-ray systems.</p>                                                                                                                                                                                                                                                                                                                                                                                                        | <p>The impact of the new observations is clearly in the optical/X-ray comparison. I recommend to assign the requested time in this call, with possible time allocations in following semesters conditional on the acquisition of X-ray data in AOT39.</p>                                                                                                                                                                                                         |
| <p>This is a well-written and well synthesized proposal that aims to shed light on the nature of the peculiar and so interesting Be/X-ray transient 1A 0538?66 in LMC. The proposal makes a good use of the capability of REM of observing multiple energy bands at the same time. Observations made by REM could trigger a ToO XMM-Newton (X-ray) observation obtained by the group that would help disentangling among competing theoretical models and also increase the likelihood of a publication.</p>                                                                                                                                                                                                                                                                             | <p>The ultimate science goal of the proposal is not particularly timely or broad.</p>                                                                                                                                                                                                                                                                                                                                                                             |
| <p>The proposal aims at continuing the photometric monitoring of the Be/X-ray binary A0538-66 in the LMC to catch a transient brightening that will allow the proposing team to trigger ToO X-ray observations. The understanding of the wide range of variabilities displayed and how the optical and X-ray variations are linked is still matter of debate. The proposed target is subject of an intense optical monitoring to model the interaction of the NS with variable circumstellar matter of the early type companion. The proposed REM observations will enable the activation of an XMM-Newton programme on AO538-66 already approved.<br/>An additional X-ray source in the FoV will be observed that could provide interesting information on the optical counterpart.</p> | <p>The proposal could have made stronger the case of multi-band photometry by discussing whether the study of the broad band SED from g' to K-band and its variability will enable to obtain physical properties of the Be star envelope and disc and their changes. It appears that the proposal mainly aims at determining possible correlated variability with the X-rays but little is explained in terms of physical parameters that will be derived.</p>    |

Interesting source with peculiar behaviour, possibility to trigger high energy ToOs

The relevance and impact of the proposed program for our overall understanding of accretion physics onto NSs should have been explained more explicitly. The target is shown as a system with a peculiar/unique behaviour -- by constraining models tailored for that source, what can we learn on HMXBs in general?

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