*Request for ZTF Collaborator Status - Daniel Perley*

To: \_ZTF board\_

From: L. Yan

This memo serves to request collaborator status for Daniel Perley (LJMU) within the project on superluminous supernovae.

**Proposed contribution to ZTF key projects:** D. Perley will provide LT spectroscopic classifications of candidate new superluminous supernovae, and near-peak follow-up of known superluminous supernovae. The flexibility and sensitivity of LT/SPRAT will permit these events to be discovered earlier in their evolution and in larger numbers, and enhance ZTF science returns in this subject.

**Personnel:** Participation is requested for Perley himself and for his PhD student (Ms. Kirsty Taggart). Kirsty will help with the selection and LT follow-up efforts. Her thesis ("The Host Galaxies of Extreme Transients"; expected completion early 2019) is primarily archival and not dependent on this work, but her participation (as a side effort) will ensure efficient use of LJMU/UK resources.

**Observing Resources:** As faculty at LJMU Perley has institutional access to the Liverpool Telescope (LT), a 2-m robotic telescope at an excellent site. The most important instrument for ZTF activities will be SPRAT, a low-resolution efficient optical spectrograph. SPRAT's acquisition procedure is fully automatic and it is capable of classifying a 19.5 magnitude transient in approximately 15 minutes (incl. overheads). This capability will be very helpful for quickly confirming new candidate slow-rising transients as SLSNe (or perhaps as other interesting sources) and motivating other follow-up. For 2018A the LT TAC has allocated 9 hours to Perley's proposal for superluminous supernovae follow-up. Occasional follow-up time may also be available with the 4-m WHT.

Additionally, Perley will continue to maintain/upgrade the LRIS pipeline and update it in response to any future changes with the instrument. LRIS has been critical to a large number of iPTF papers (and to SLSN studies specifically due to its blue coverage, sensitivity to very faint objects, and imaging capabilities.) He will also offer advice and interpretation of new events, particularly regarding questions related to host-galaxy environments (his field of expertise).

**Point of Contact:** The point of contact for this project will be Lin Yan.

**Proposed Publications:** No specific papers dependent on ZTF data are currently requested. Perley's interests in this field are driven by a desire to remain engaged in the latest developments in the subject (and to involve a PhD student in the same) and to help produce larger, more uniform samples of nearby SLSNe. Papers involving ZTF data will be lead by Perley or Taggart only if specifically approved by the collaboration.

**Required Access to ZTF Data:** Access to preliminary light curves of slow-rising transients (to help select candidates) for D. Perley and K. Taggart is requested, along with knowledge of other follow-up efforts on these sources.

**Data Rights and Benefits:** All spectra will be made available to the collaboration. Standard co-authorship policies will apply; i.e. data or significant intellectual contributions provided towards a publication are expected to result in offered co-authorship.