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Type Ia supernova distances with a single near-infrared epoch

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Since the discovery of the accelerated expansion of the Universe more than two decades ago, Type Ia Supernovae (SNe Ia) have been extensively used as standardisable candles in the optical. However, SNe Ia have shown to be more homogeneous in the near-infrared (NIR), where the effect of dust extinction is also attenuated. Actually, one single epoch in J and/or H band imaging, plus good gr-band coverage, may be enough to get an accurate estimation of peak magnitudes in the J (J_{max}) and H (H_{max}) bands, and therefore precise distances. We are currently performing a SN Ia NIR imaging survey in J- and H-bands to build a sample of 10^3 SNe Ia and get systematics-limited (better than 3%) distances with minimal resources (SNFLOWS survey), with the main goal of expanding our view of Laniakea out to $z=0.1$. In this talk I will present SNFLOWS and the possible extension using serendipitous observations of SNIa in the Wide Surevy footprint of EUCLID.

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