

STRONG COMPLETENESS BELOW GLP

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ABSTRACT. We present an overview of results towards strong topological completeness of GLP and its fragments. GL itself is known not to be strongly complete w.r.t. Kripke frames, it requires a certain trick to build a Kripke-like model for strong completeness. Therefore, the situation with GLP and its fragments is expectedly non-trivial. The closed fragment of GLP is known to be Kripke complete w.r.t. a single frame called Ignatiev frame (moreover w.r.t. to a subset of points on this frame, namely the main axis), we show that the closed fragment of GLP is strongly complete w.r.t. an extension of the Ignatiev frame, yet not strongly complete w.r.t. its main axis. A stronger fragment J is strongly complete with respect to J-bouquets. It was also shown that I and GLP are not strongly complete w.r.t. either Icard or Beklemishev-Gabelaia topological spaces, which are known to provide topological completeness for the closed fragment of GLP and GLP itself correspondingly. However, strong topological completeness for $\text{GLP}_2 + [1]^n \perp$ can be attained w.r.t. a slight modification BG topologies.