

# PATTERNS IN THE LARGE CARDINAL HIERARCHY

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ABSTRACT. In my talk, I will present results showing that the existence of various well-known large cardinals can be characterized through the validity of strong extensions of the downward Löwenheim-Skolem theorem. These equivalences show that certain patterns recur throughout the large cardinal hierarchy. In particular, they show that strongly unfoldable cardinals, introduced by Villaveces in his model-theoretic investigations of models of set theory, relate to subtle cardinals, introduced by Kunen and Jensen in their studies of strong diamond principles, in the same way as supercompact cardinals relate to Vopěnka cardinals and strong cardinals relate to Woodin cardinals. This is joint work in progress with Joan Bagaria (Barcelona).