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A reflection principle for co-anaalytic sets

The First Reflection Theorem says that for any Π^1-on-Σ^1_1 property Φ, if an analytic set A satisfies Φ then there is a Borel set $B \supseteq A$ which satisfies Φ. We say that Φ satisfies Bounded Reflection if the previous set B can be found of a fixed Borel rank, and Φ satisfies Π^1_1-Reflection if this holds for co-analytic sets A as well. We show that for a suitable class of properties Φ, the statement that every Φ satisfying Bounded Reflection also satisfies Π^1_1-Reflection is equivalent to the Perfect Set Property for Π^1_1-sets. This is joint work with Jindra Zapletal.