

Research TODOs

- Menger/Rothberger properties and games results
 - Is there a slick characterization of $F \uparrow_{2\text{-mark}} Cov_{C,F}(X)$ for regular/general spaces?
 - Is $F \uparrow? Cov_{C,F}(X)$ or $F \uparrow? Cov_{C,S}(X)$ a hereditary property under closed subsets for any type of limited information? (The Menger property is; is Rothberger?)
 - Investigate Markov strategies for S in $Cov_{C,S}(X)$ or P in $Cov_{P,O}(X)$.
 - $S \uparrow_{2\text{-mark}} Cov_{C,S}(X) \Leftrightarrow S \uparrow_{k\text{-mark}} Cov_{C,S}(X)$?
 - $S \uparrow_{2\text{-mark}} Cov_{C,S}(\omega_1^*)$ or $S \uparrow_{2\text{-mark}} Cov_{C,S}(\omega_1^\dagger)$?
 - $F \uparrow_{k\text{-mark}} Fill_{C,F}^\subseteq(\kappa) \Rightarrow F \uparrow_{k\text{-mark}} Cov_{C,F}(\kappa^\dagger)$?
 - Would Lindelof scattered spaces have a 2-Markov strategy in the Menger game?
- Filling games
 - Show/disprove $F \uparrow_{3\text{-tact}} Fill_{M,N}^\subseteq(J)$ implies $F \uparrow_{3\text{-mark}} Fill_{M,N}^\subseteq(J)$.
 - Show/disprove $F \uparrow_{2\text{-mark}} Cov_{C,F}(\kappa^\dagger)$ implies $F \uparrow_{2\text{-mark}} Fill_{C,F}^\subseteq(\kappa)$.
- Search for a class of spaces where $K \uparrow_{2\text{-tact}} LF_{K,P}(X)$ characterizes metacompact (aka implies $K \uparrow_{\text{tact}} LF_{K,P}(X)$)
 - Investigate the ladder space suggested by G.
 - Try zero-dimensional.
- Proximity Game
 - Does predetermined strategy for D on abs. proximal space, imply predetermined strategy for O in $\text{con}(X,H)$ for H compact?
 - Is proximal game properties preserved under perfect maps? Or, compact proximal preserved under continuous.