Research TODOs

- Menger/Rothberger properties and games results
  - Is there a slick characterization of $F \underset{2\text{-mark}}{\uparrow} Cov_{C,F}(X)$ 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 $Cov_{P,O}(X)$.
  - $S \underset{2\text{-mark}}{\uparrow} Cov_{C,S}(X) \Leftrightarrow S \underset{k\text{-mark}}{\uparrow} Cov_{C,S}(X)$?
  - $S \underset{2\text{-mark}}{\uparrow} Cov_{C,S}(\omega_1^*)$ or $S \underset{2\text{-mark}}{\uparrow} Cov_{C,S}(\omega_1^\dagger)$?
  - $F \underset{k\text{-mark}}{\uparrow} Fill_{C,F}^{\subseteq}(\kappa) \Rightarrow F \underset{k\text{-mark}}{\uparrow} Cov_{C,F}(\kappa^\dagger)$?
  - Would Lindelof scattered spaces have a 2-Markov strategy in the Menger game?
- Filling games
  - Show/disprove $F \underset{3\text{-tact}}{\uparrow} Fill_{M,N}^{\subseteq}(J)$ implies $F \underset{3\text{-mark}}{\uparrow} Fill_{M,N}^{\subseteq}(J)$.
  - Show/disprove $F \underset{2\text{-mark}}{\uparrow} Cov_{C,F}(\kappa^\dagger)$ implies $F \underset{2\text{-mark}}{\uparrow} Fill_{C,F}^{\subseteq}(\kappa)$.
- Search for a class of spaces where $K \underset{2\text{-tact}}{\uparrow} LF_{K,P}(X)$ characterizes metacompact (aka implies $K \underset{\text{tact}}{\uparrow} LF_{K,P}(X)$)
  - Investigate the ladder space suggested by G.
  - Try zero-dimensional.
- Proximity Game
  - Does predetermined strategy for D on abs. proxmial space, imply predetermined strategy for O in con(X,H) for H compact?
  - Is proximal game properties preserved under perfect maps? Or, compact proximal preserved under continuous.
  - Does the one-point compactification of ladder ω_1 space have Markov strategy? (Try ladder space where nth rung is limit+n $\Rightarrow$ is a Moore space and has G_δ diagonal)
  - Does the Michael line have a predetermined/Markov strategy?
  - Uniformly locally compact plus predtermiend implies metrizable unifomrity.
  - What about Bernstein set?
  - Is there a non-normal ladder X with $\mathscr{P} \not\uparrow Prox_{D,P}(X)$?

* Diamond implies there exists a ladder such that for any uncountable subset of successors, the rungs for a limit is contained.
* So assume diamond, or maybe just CH.