

1. Halfway done in refurbishing the document on nonstationary covariance model.
  - ▶ Easy introduction to clients. Analogy to low dimensional embedding.
  - ▶ Justify why we chose cluster centers as kernel centers.
2. Refined the C++ codebase of `NGFMfitDistr`, `keyALGs`, `keyALGsExt`.
  - ▶ Studied a lot about C++20. Familiarized with template meta programming for pushing compile time computation.
  - ▶ Implemented a memory pool that can recycle `std::vector` containers of any type in the most parsimonious manner. It will substantially reduce the memory footprint in all my current and future C++ applications, and change the way I approach problems — from a more object-oriented mindset to a more functional one.
    - ▶ This problem has been lingering in my head for 8 years.
    - ▶ Attempted to solve it more than a year ago but to little avail.
    - ▶ The practice will probably be frowned upon by C++ community as it does not entirely conform C++ standard. However, with sufficient pretests in the pool constructor, the computing platform will conclude if the software can be supported in compile time.
3. Briefly communicated Syed about LASSO. Next week they might need me to review the methodology or to run their Mexico model.