

Analysis Paper

- Convert double to float
 - Might speed up twice
- Add const everywhere
 - Might speed up 1.1 times
- Convert pointers to references
 - as much as possible
 - Might speed up 1.1 times
- Overload Operators
 - Big four
 - Might speed up 1.2 times
- Remove Invariants
 - Might speed up 1.1 times
- Remove temporaries
 - +=, -= *= /=
 - Might speed up 1.2 times
 - Using proxies
 - Might speed up 1.5 times
- STL containers
 - Might speed up twice

- Find the ideal container to replace
 - Or using customized container
- Eliminate redundant code
 - Might speed up 1.5 times
- Using SIMD
 - Might speed up 1.5 to 3 times
 - Depends on what kind of matrix multiplications
- Move small functions in ONE super function
 - Might speed up 1.5 times
 - To eliminate local temporary
- Using proxies
 - Might speed up 1.5 times
- Change compiler settings
 - Might speed up 1.2 times