**Installing FlameMaster:**

Go to ~/FlameMaster/Repository, remove build, mkdir build and go to build.

Do cmake .. thenmake and then make install

**Using Flamemaster:**

cd ~/flamemaster/Run/FlameMan/Diff/Steady/NH3H2

FlameMan -i nh.in

nh.in is the input file. We need a starting profile that needs to be specified in nh.in

(StartProfilesFile is ./startp1) and an output folder needs to be specified(create folder before running)

ArclengthCont = TRUE if we want all the flamelets in certain direction. Direction is decided by the two scalar dissipation rates

Eg:

[Scalar DissipationRate =43(this is the rate close to start profile)

Scalar DissipationRate = 1]

This will go in the direction of decreasing rate

Do for both direction([Scalar DissipationRate =43

Scalar DissipationRate = 1000])

and store in separate folders

remove all noC

rm -r \*noC

rm -r \*dout

Now for pure mixing solutions, ArclengthCont = FALSE and use the flamelet with lowest Tst and give a high values of dissipation rates([Scalar DissipationRate = 10000

Scalar DissipationRate = 30000])

Shouldn’t put Scalar DissipationRate close to start profile in this case

Rename these flamelets(it won’t have Tst at end, so add it)

**Some notes:**

Global reaction is used for calculation of Z\_st only, hence it can be made wrong to get a correct Z\_st. Using global reaction, it obtains Yo/Yf at stoichiometric condition.

The boundary conditions are also used to get Zst(for Yf,1 and Yo,2). Also, BCs will affect the simulation result unlike global reaction!