V-cycles	h	Error
5	0.125	0.197196
5	0.0625	0.0996122
5	0.03125	0.0497636
5	0.015625	0.0245478
5	0.0078125	0.0115752
5	0.00390625	0.00438851
2	0.125	0.125382
2	0.0625	0.113839
2	0.03125	0.424885
2	0.015625	0.960969
2	0.0078125	1.98809
2	0.00390625	4.01955

Table 1 h VS Error with different numbers of V-cycles

Figure 1 h VS Error
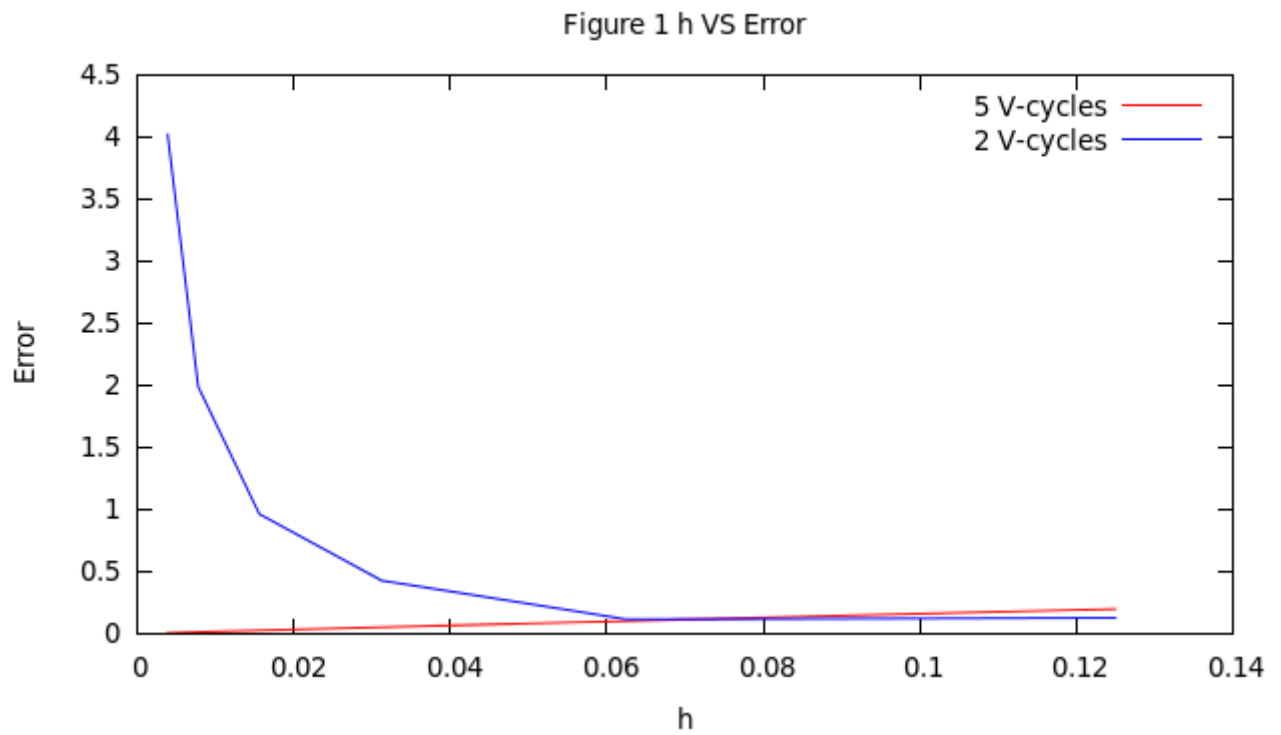
From the Figure 1, we can find with the increasing of mesh size, different numbers of V-cycles have different performances. The results seem like decreasing mesh size can not result in lower discretization error for multigrid is so special that sometimes lower mesh size will make converge slow.