Linear Allocation - All the processes from simulation were allocated one side and processes from analysis were allocated on other side
Round Robin - For Round robin allocation r process were allocated from simulation and 1 process from analysis for the ratio r:1

Time - Communication between analysis and simulation process

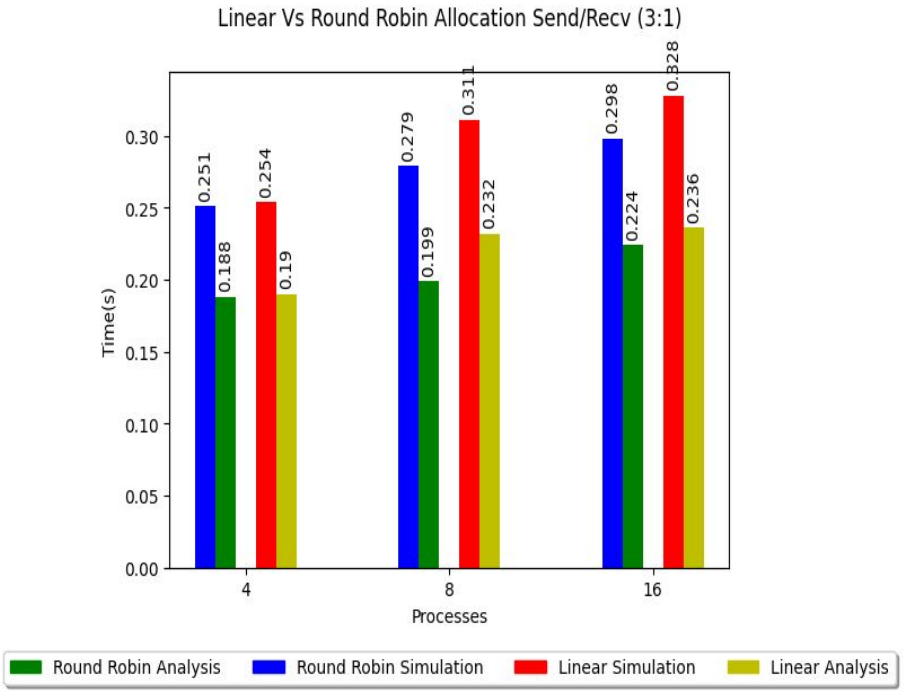
For both RMA and MPI_Send uses the same number of atoms are running on the same number of processes.

Ratio = 3:1

Weak Scaling

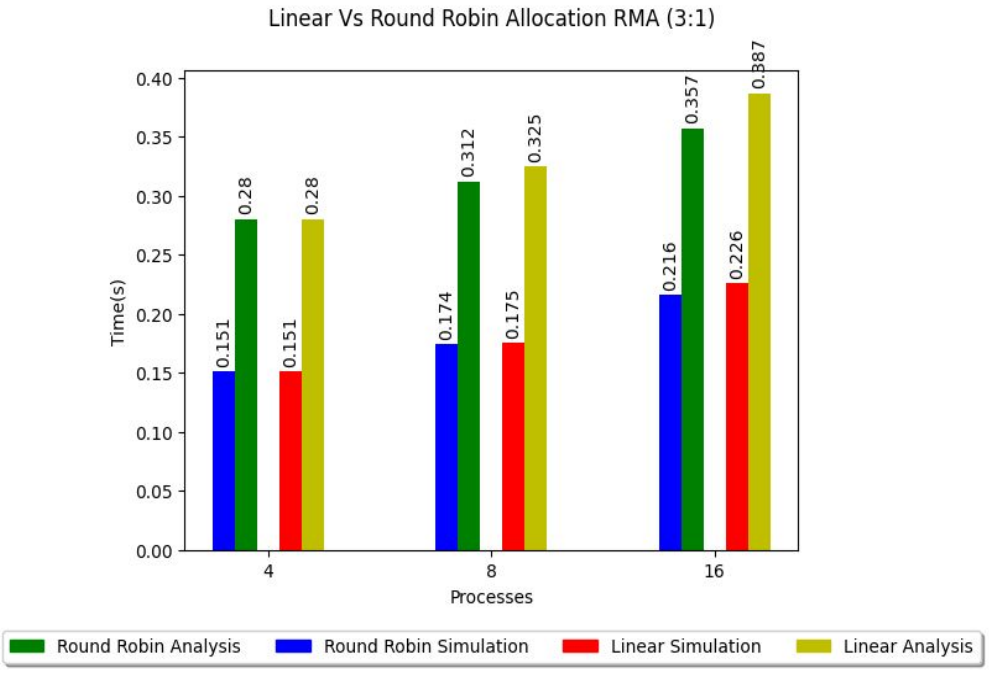
Method - MPI_Send / MPI_Recv
Allocation - Linear vs Round Robin

SImulation Processes	Analysis Process	Atoms
3	1	2097152
6	2	4194304
12	4	8388608



Description - comparison between linear allocation and round robin allocation under weak scaling condition using MPI_Send/MPI_Recv

Method - RMA
Allocation - Linear Vs Round Robin

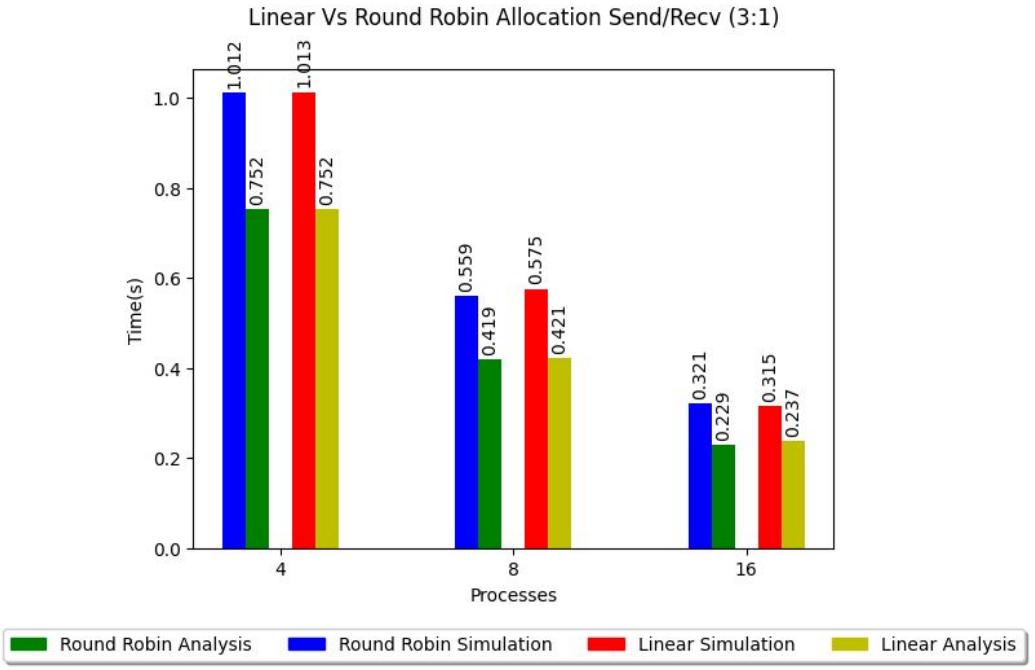


Desc: comparison between linear allocation and round robin allocation using RMA

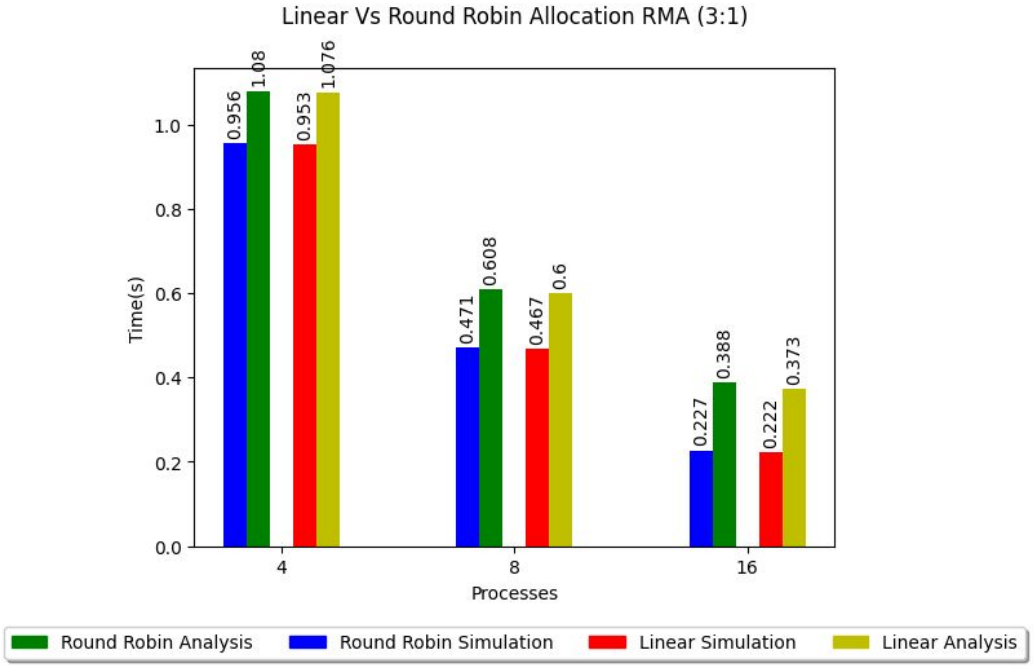
Strong Scaling

Method - MPI_Send and MPI_Recv
Allocation - Linear vs Round Robin

SImulation Processes	Analysis Process	Atoms
3	1	8388608
6	2	8388608
12	4	8388608

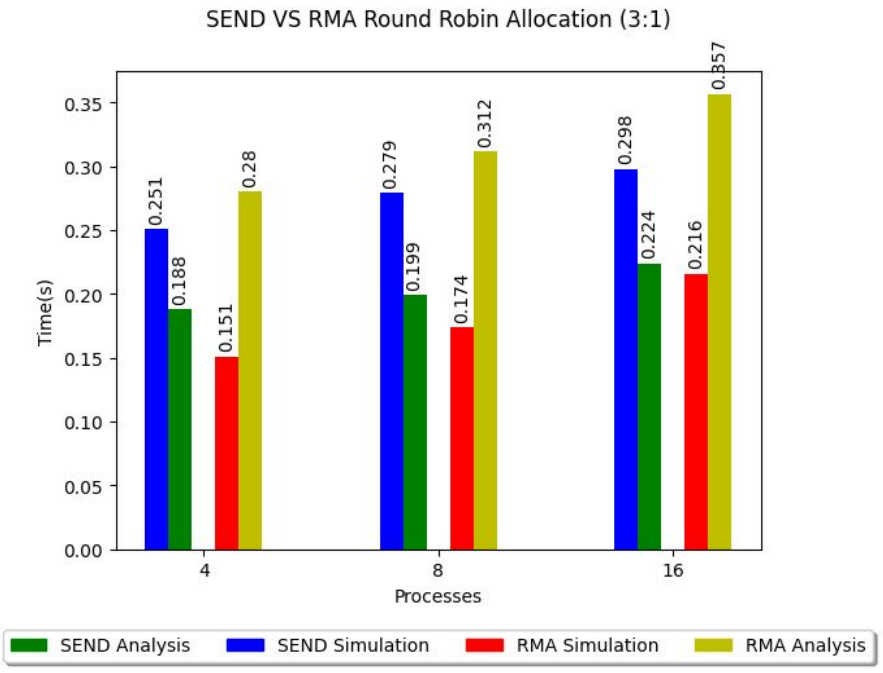


Method - RMA
Allocation - Linear vs Round Robin

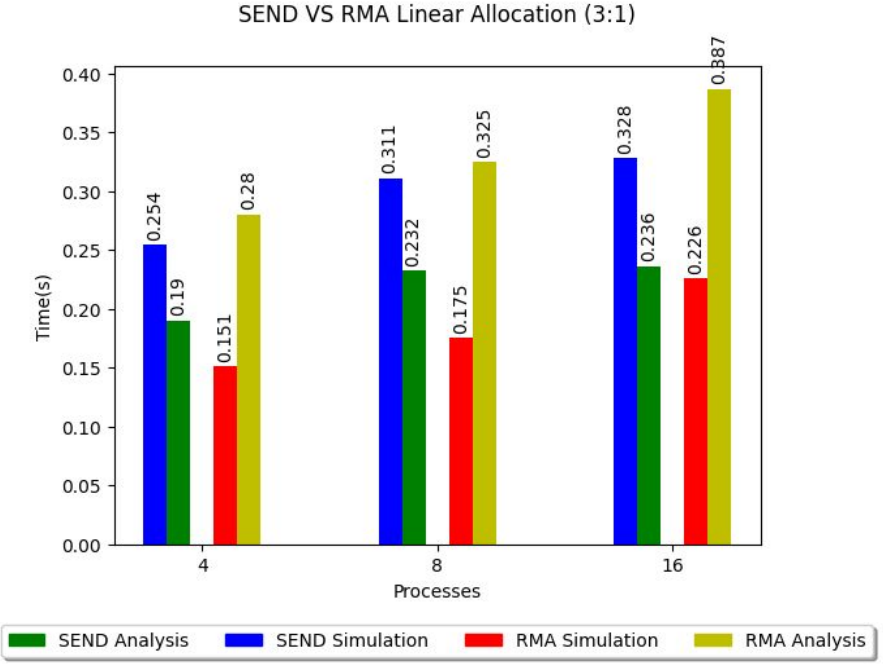


Comparison Between MPI_Send and RMA

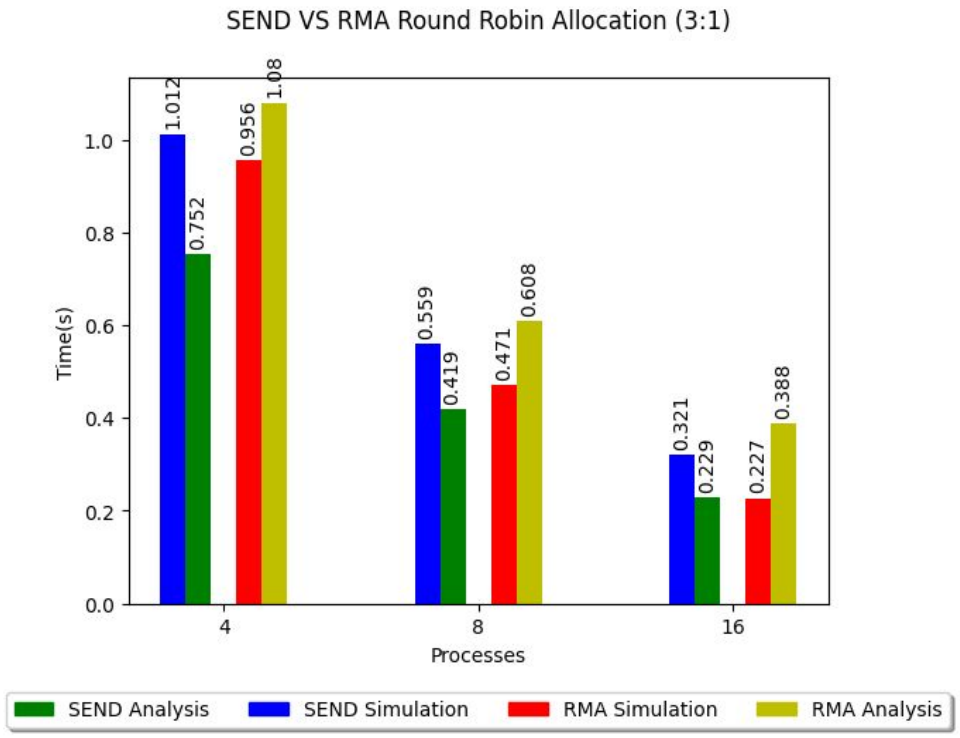
Weak Scaling
Method - Send Vs RMA
Allocation - Round Robin Allocation



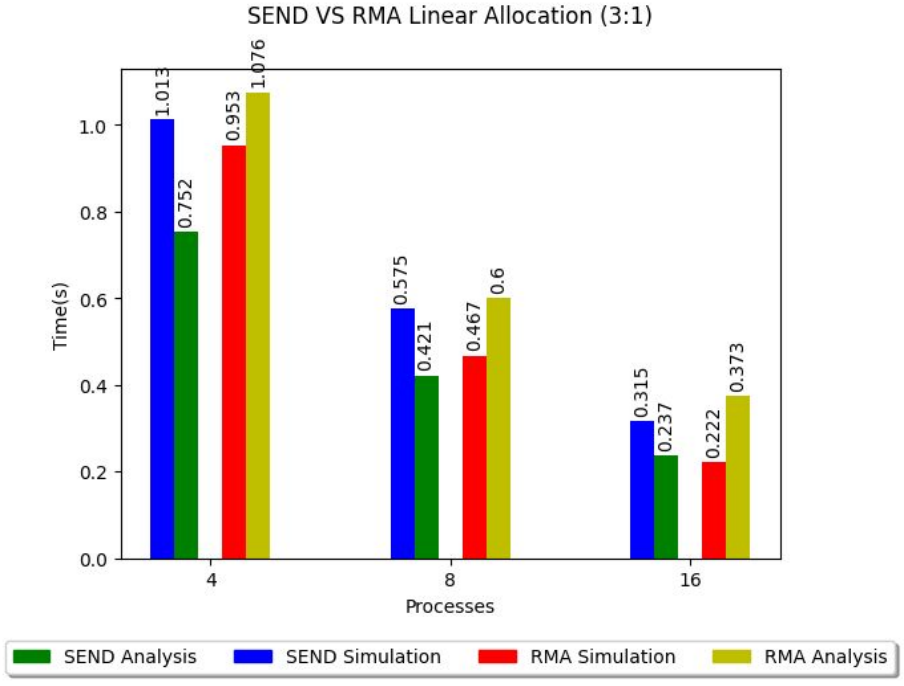
Method - Send and RMA
Allocation - Linear



Strong Scaling
Method - Send Vs RMA
Allocation - Round Robin Allocation

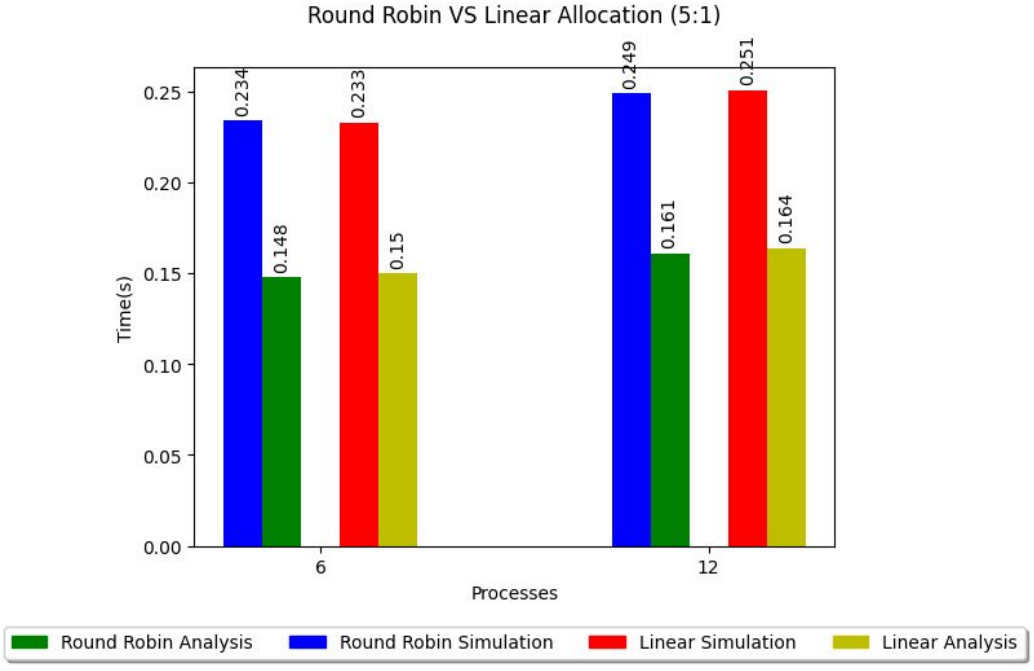


Method - Send and RMA
Allocation - Linear

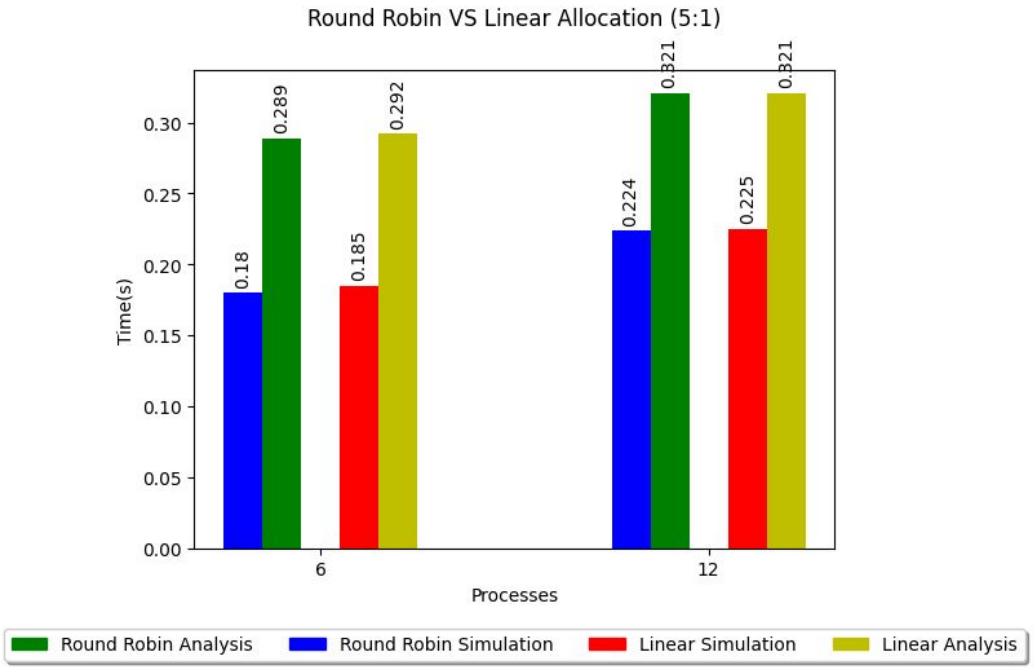


Ratio - 5:1
Weak scaling
Method - MPI_Send and MPI_Recv
Allocation - Linear vs Round Robin

SImulation Processes	Analysis Process	Atoms
5	1	2097152
12	4	4194304

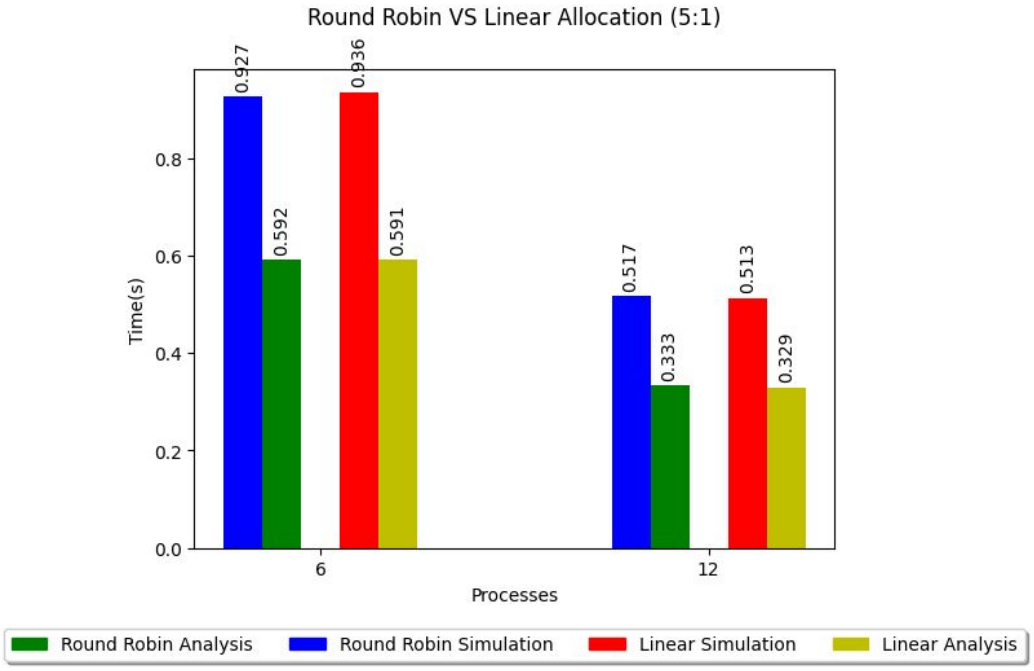


Method - RMA
Allocation - Linear vs Round Robin

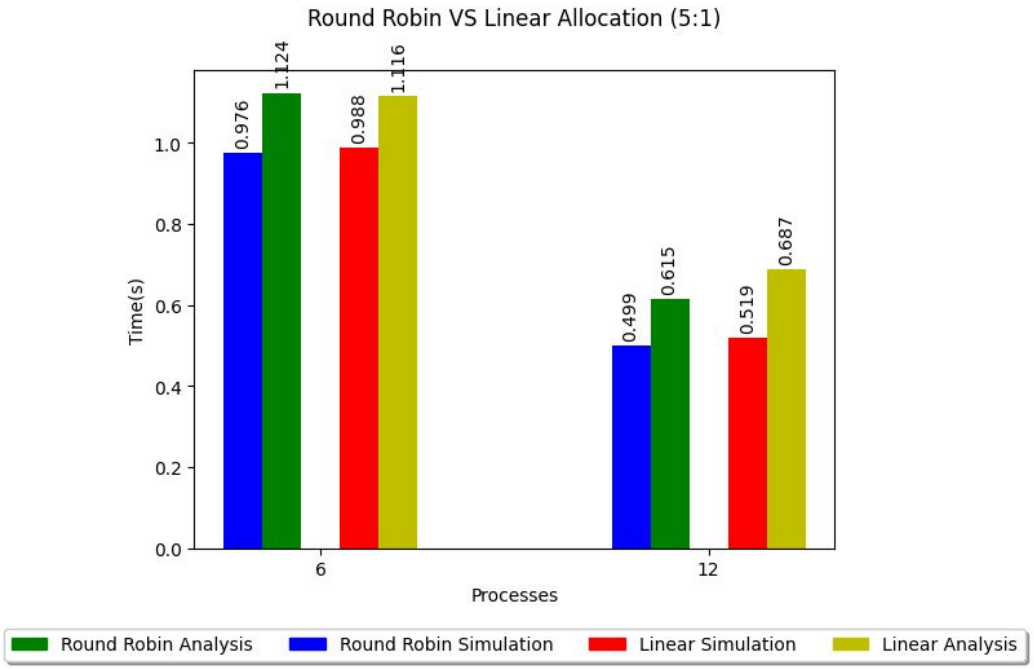


Strong Scaling
Method - MPI_Send and MPI_Recv
Allocation - Linear vs Round Robin

SImulation Processes	Analysis Process	Atoms
5	1	8388608
12	4	8388608

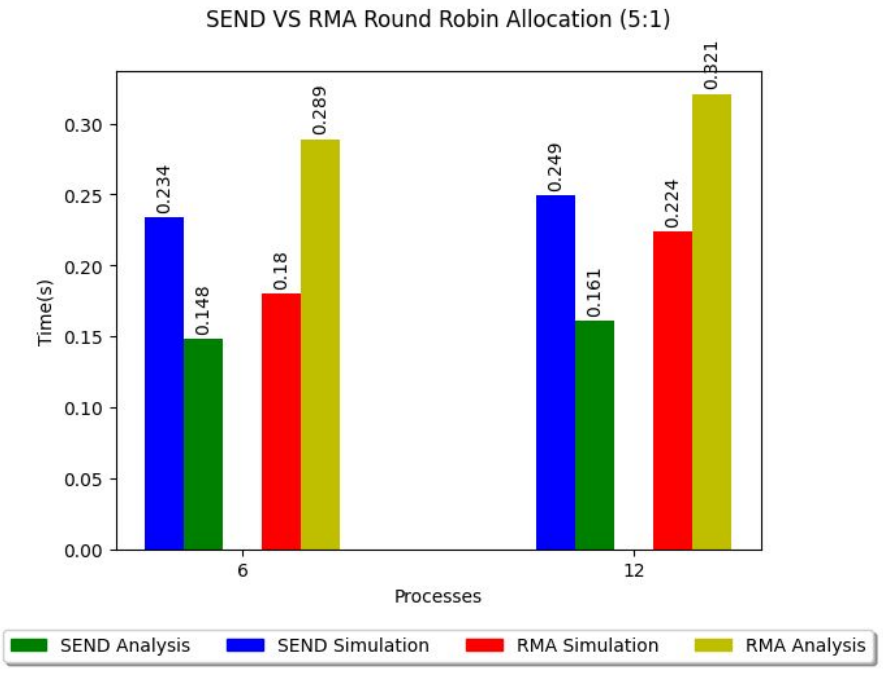


Method - RMA
Allocation - Linear vs Round Robin

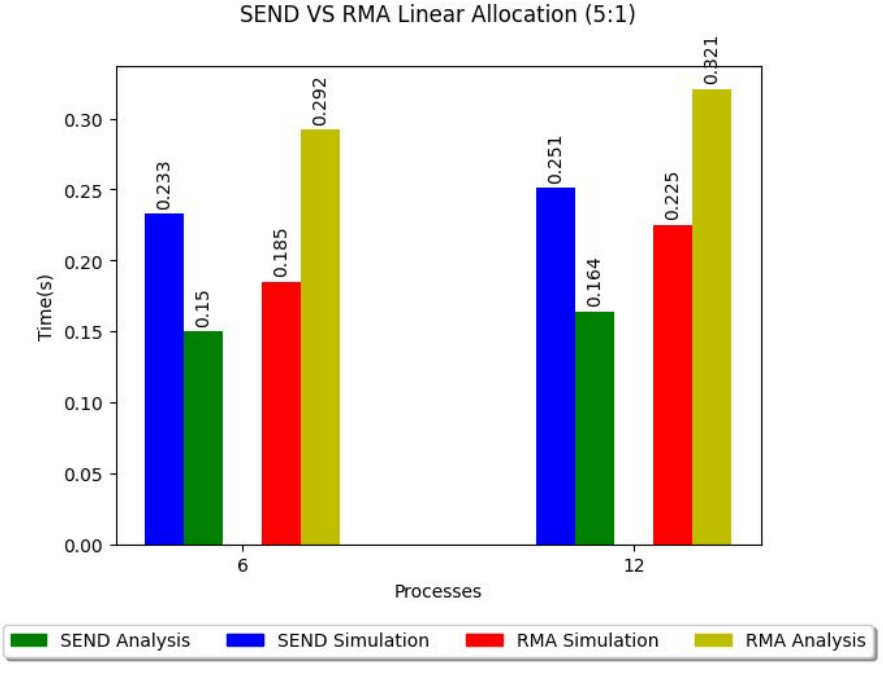


Comparison

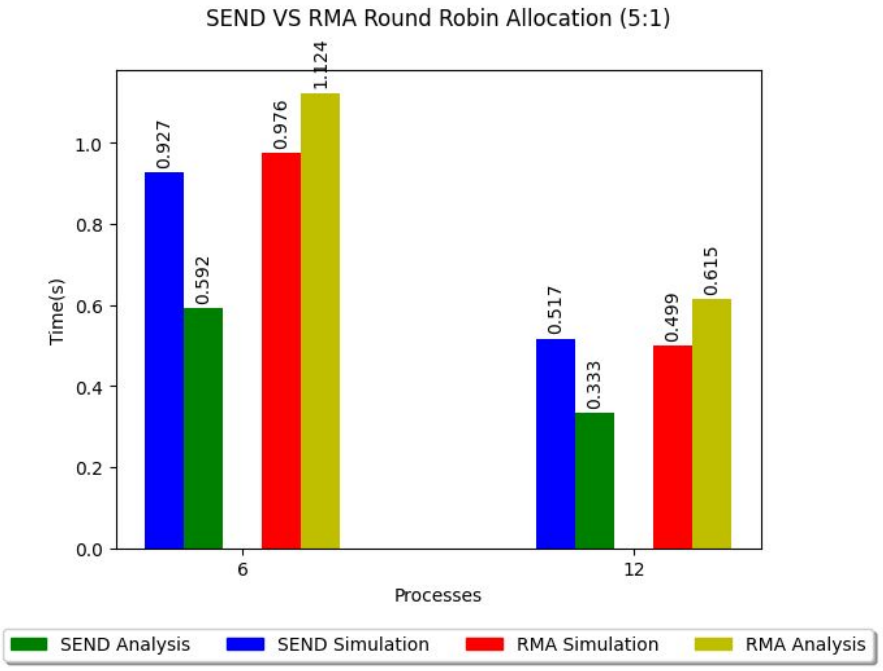
Weak Scaling
Method - Send and RMA
Allocation - Round Robin allocation



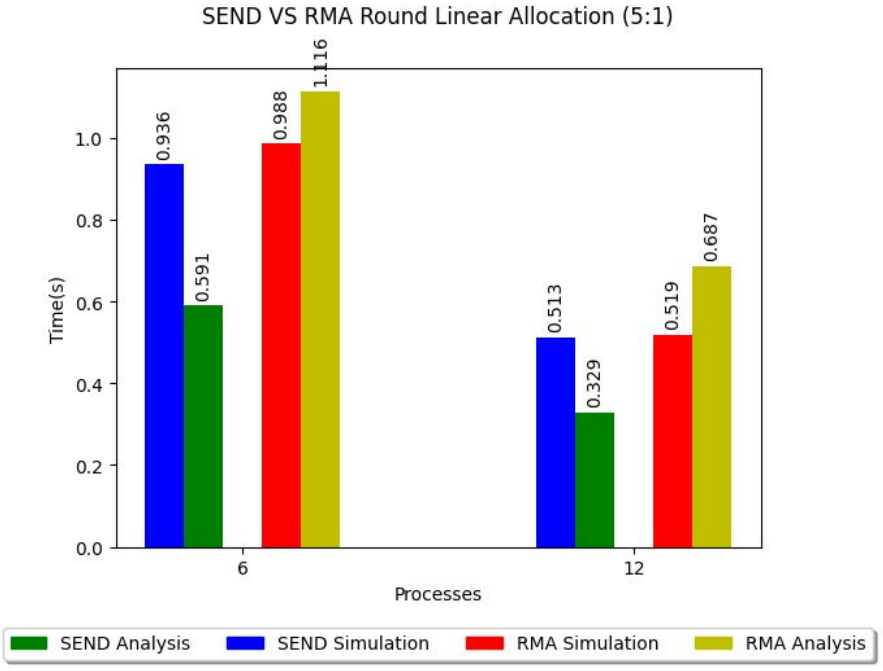
Method - Send and RMA
Allocation - Linear allocation



Strong Scaling
Method - Send and RMA
Allocation - Round robin allocation

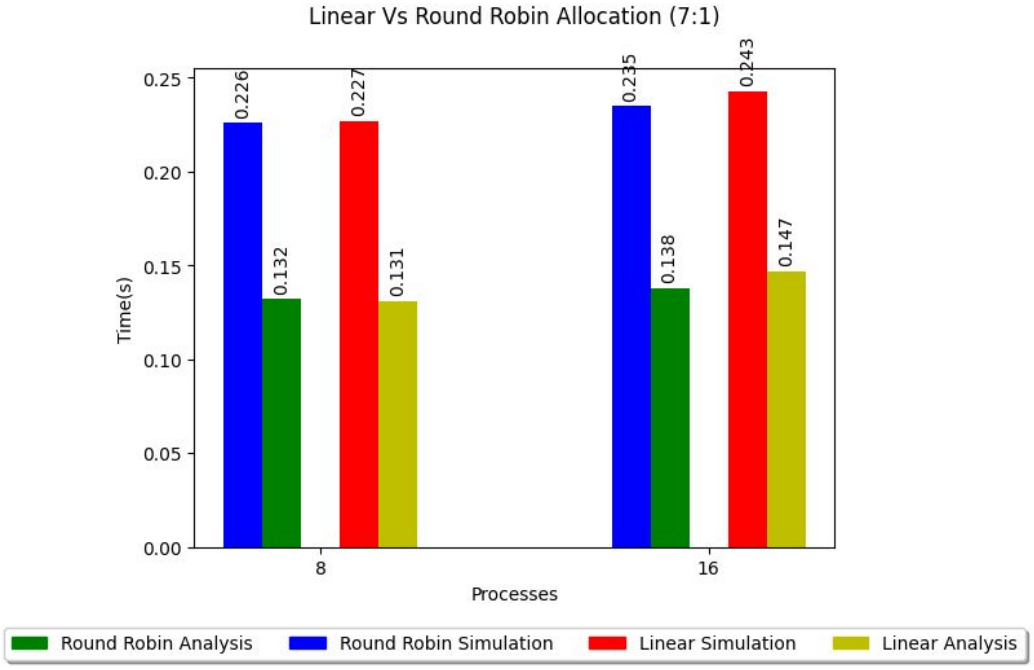


Method - RMA vs Linear
Allocation - Linear allocation

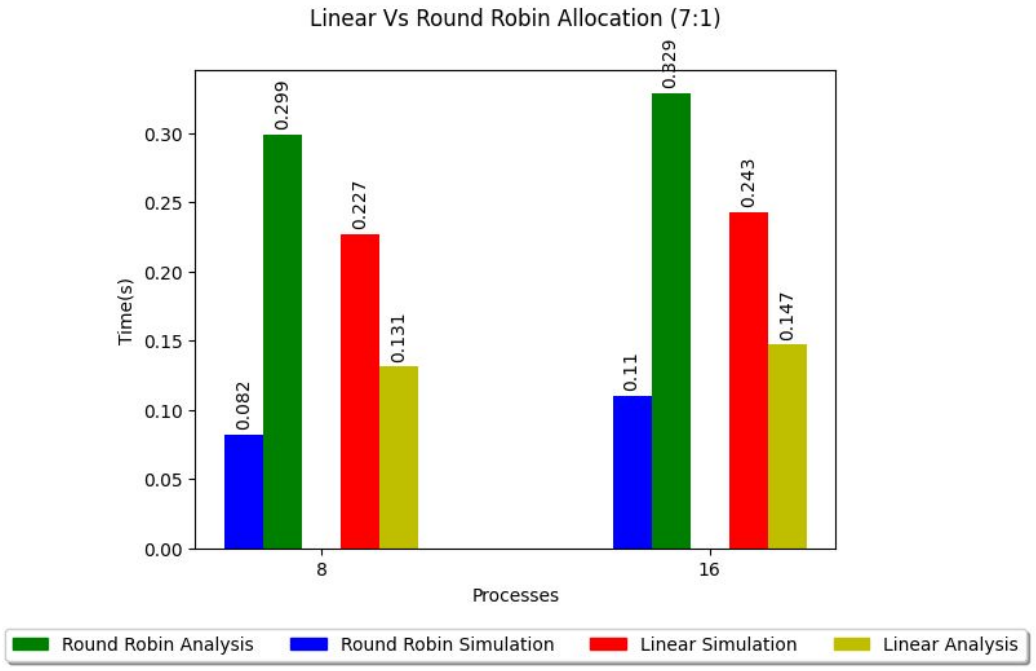


Ratio - 7:1
Weak scaling
Method - MPI_Send / MPI_Recv
Allocation - Linear vs Round Robin

SImulation Processes	Analysis Process	Atoms
7	1	2097152
14	2	4194304

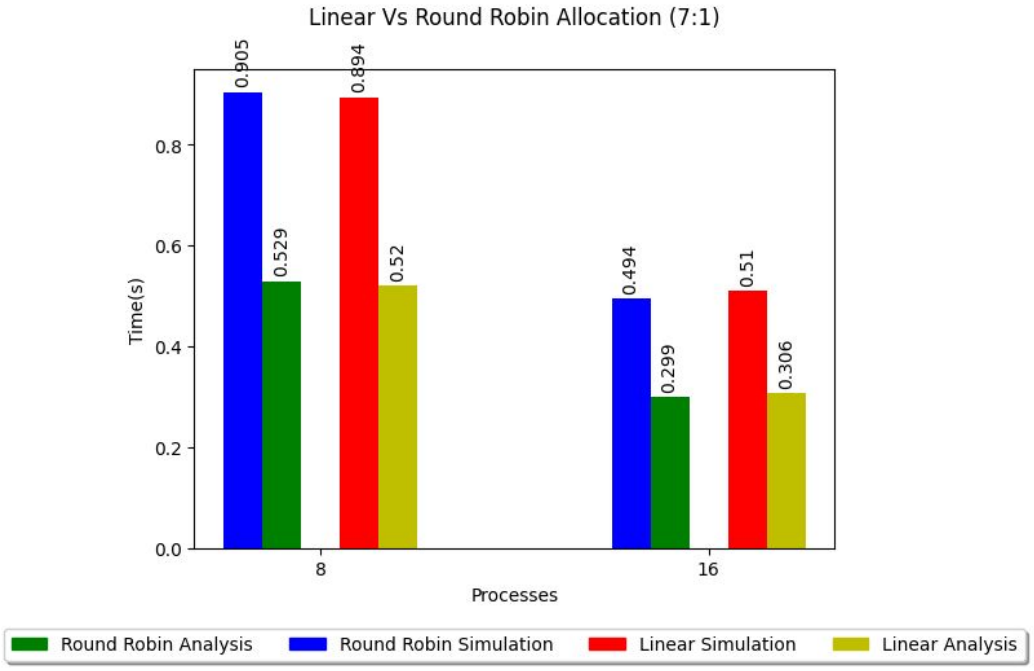


Method - RMA
Allocation - Linear vs Round Robin

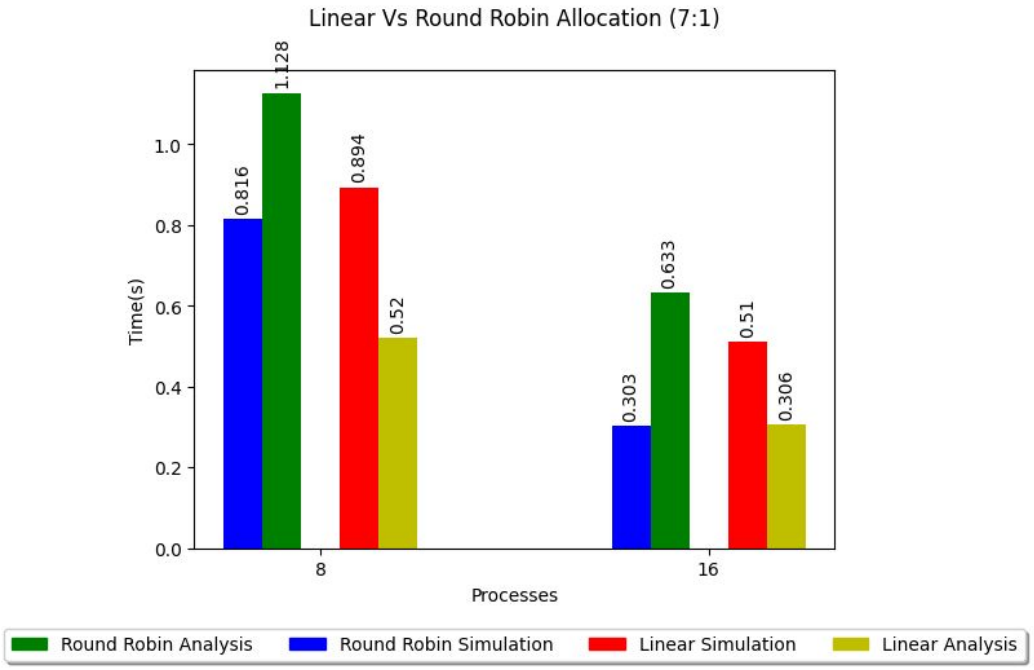


Strong Scaling
Method - MPI_Send / MPI_Recv
Allocation - Linear vs Round Robin

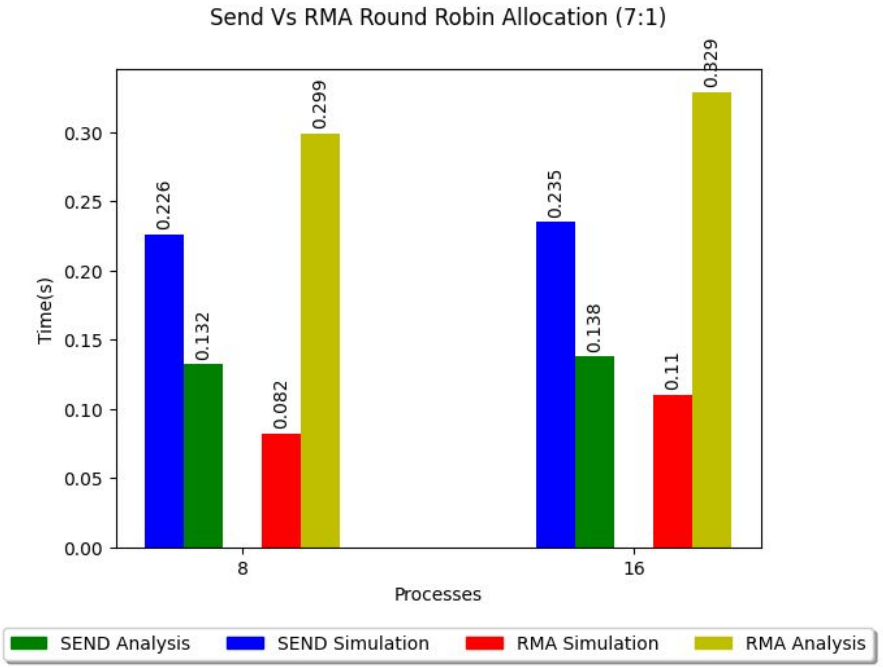
SImulation Processes	Analysis Process	Atoms
7	1	8388608
14	2	8388608



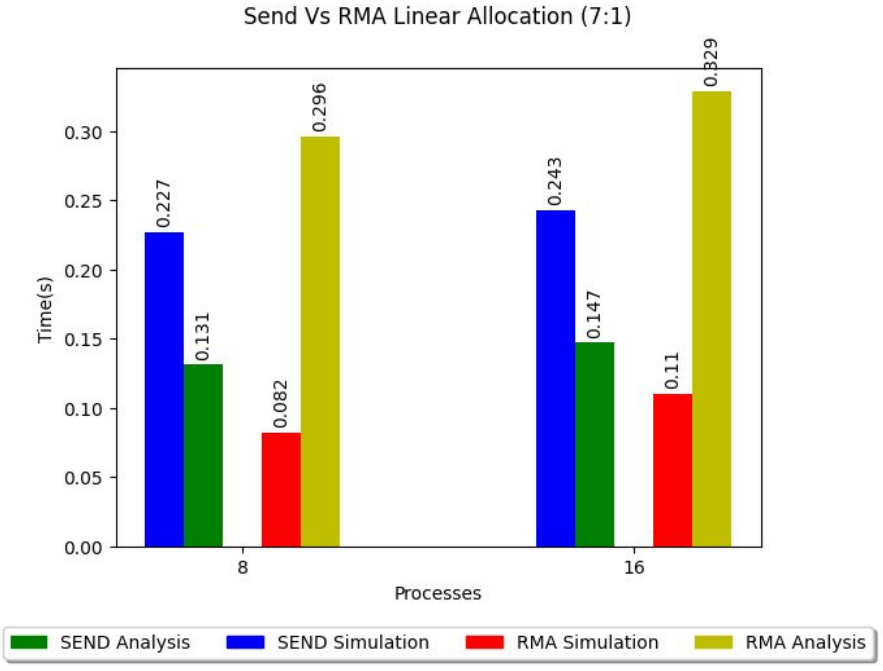
Method - RMA
Allocation - Linear vs Round Robin



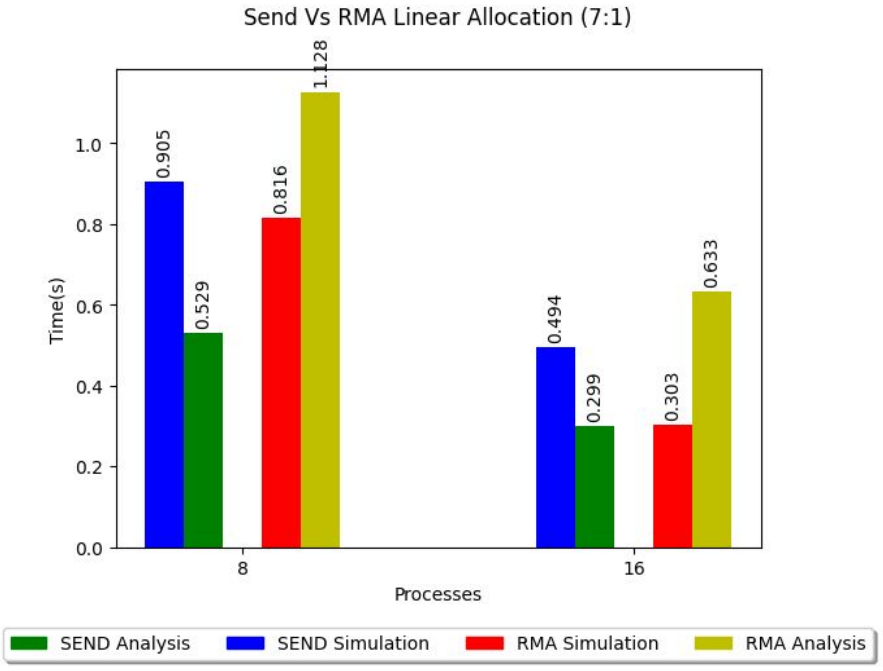
Comparison
Weak scaling
Method - MPI_Send and RMA
Allocation - Round Robin



Method - MPI_Send and RMA
Allocation - Linear



Strong Scaling
Method - MPI_Send and RMA
Allocation - Round Robin



Method - MPI_Send and RMA
Allocation - Linear Allocation