

Figure 1 is a line plot showing the number of particles (x-axis, 0 to 50,000) versus the number of particles (y-axis, 0 to 50,000) for various acceleration methods. The methods are: acc_vect_vepe (blue), acc_onenarray_vepe (orange), jerk_vepe (green), acc_vect_gia (red), acc_opt_gia (purple), acc_vect_diego (brown), and acceleration_pyfalcon (pink). The plot shows that the number of particles increases for all methods, with jerk_vepe and acc_vect_gia showing the highest growth rates. An inset plot shows a zoomed-in view of the region where the number of particles is between 0 and 12,000, highlighting the initial growth of the methods.

Figure 1 is a log-linear plot showing the time spent for acceleration estimation (s) [log scale] versus the Number of particles. The y-axis is logarithmic, ranging from 10^{-4} to 10^3 seconds. The x-axis is linear, ranging from 0 to 50,000 particles. The plot compares seven methods: acc_vect_vepe (blue), acc_onearray_vepe (orange), jerk_vepe (green), acc_vect_gia (red), acc_opt_gia (purple), acc_vect_diego (brown), and acceleration_pyfalcon (pink). Most methods show a sharp increase in time as the number of particles increases, while acceleration_pyfalcon shows a much slower increase.