## **Plot Summary**

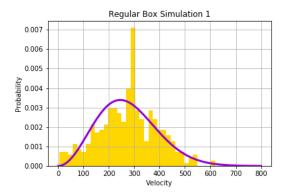


Figure 1: Number of Particles: 400, Velocity: 300.0, Radius: 1.0, Mass: 2.0, Total Time: 18s, Timestep: 0.005

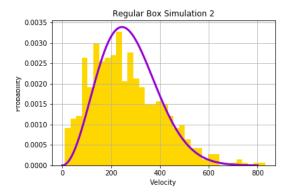


Figure 2: Number of Particles: 600, Velocity: 300.0, Radius: 5.0, Mass: 4.0, Total Time: 15s, Timestep: 0.005

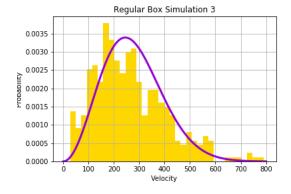


Figure 3: Number of Particles: 400, Velocity: 300.0, Radius: 5.0, Mass: 4.0, Total Time: 18s, Timestep: 0.003

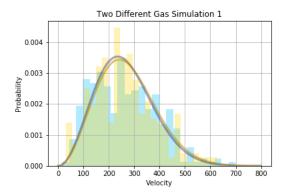


Figure 4: Total Time: 15s, Timestep: 0.005 — [Blue] - Number of Particles: 300, Velocity: 300.0, Radius: 7.0, Mass: 5.0 — [Gold] - Number of Particles: 300, Velocity: 200.0, Radius: 7.0, Mass: 5.0

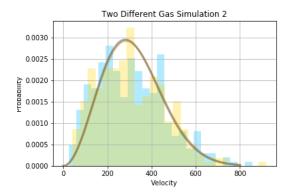


Figure 5: Total Time: 10s, Timestep: 0.005 — [Blue] - Number of Particles: 300, Velocity: 400.0, Radius: 8.0, Mass: 5.0 — [Gold] - Number of Particles: 300, Velocity: 200.0, Radius: 8.0, Mass: 5.0

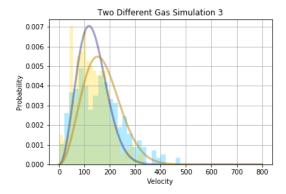


Figure 6: Total Time: 10s, Timestep: 0.005 — [Blue] - Number of Particles: 300, Velocity: 400.0, Radius: 5.0, Mass: 3.0 — [Gold] - Number of Particles: 300, Velocity: 200.0, Radius: 8.0, Mass: 5.0

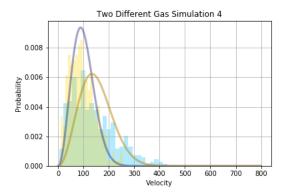


Figure 7: Total Time: 10s, Timestep: 0.005 — [Blue] - Number of Particles: 400, Velocity: 300.0, Radius: 6.0, Mass: 3.0 — [Gold] - Number of Particles: 300, Velocity: 200.0, Radius: 9.0, Mass: 6.0

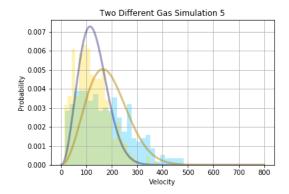


Figure 8: Total Time: 10s, Timestep: 0.005 — [Blue] - Number of Particles: 300, Velocity: 300.0, Radius: 6.0, Mass: 3.0 — [Gold] - Number of Particles: 300, Velocity: 200.0, Radius: 9.0, Mass: 6.0

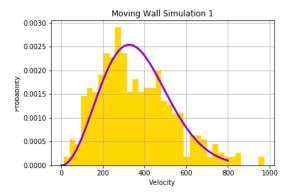


Figure 9: Number of Particles: 400, Velocity: 400.0, Radius: 1.0, Mass: 2.0, Total Time: 18s, Timestep: 0.003, WallSpeed: 100.0

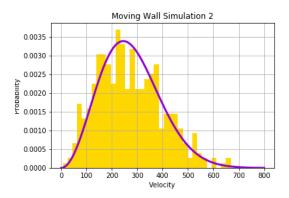


Figure 10: Number of Particles: 400, Velocity: 300.0, Radius: 1.0, Mass: 2.0, Total Time: 18s, Timestep: 0.003, WallSpeed: 100.0

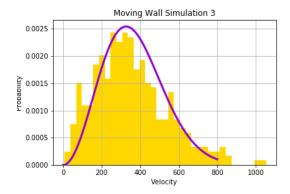


Figure 11: Number of Particles: 400, Velocity: 400.0, Radius: 3.0, Mass: 2.0, Total Time: 18s, Timestep: 0.003, WallSpeed: 100.0

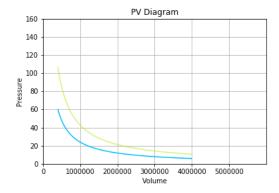


Figure 12: PV Diagram for all 3 Simulations. Gold - Trial 1, Blue - Trial 2, Green - Trial 3. Note: Trial 1 and Trial 3 had the same result.