

1.	<b>Initialize Parameters:</b>	<ul style="list-style-type: none"> <li>Set the parameters for the BPSO algorithm, such as population size, maximum iterations, number of colors, etc.</li> </ul>
2.	<b>Initialize Particles:</b>	<ul style="list-style-type: none"> <li>Randomly initialize a population of particles representing potential solutions (graph colorings).</li> </ul>
3.	<b>Evaluate Fitness:</b>	<ul style="list-style-type: none"> <li>Evaluate the fitness of each particle: <ul style="list-style-type: none"> <li>Convert the particle's position (coloring) into a graph coloring.</li> <li>Calculate the fitness of the coloring based on the number of conflicts (adjacent vertices with the same color).</li> </ul> </li> </ul>
4.	<b>Update Local and Global Best:</b>	<ul style="list-style-type: none"> <li>Update the personal best solution (local best) for each particle and the global best solution (best overall solution found by any particle in the swarm).</li> </ul>
5.	<b>Main Loop:</b>	<ul style="list-style-type: none"> <li>Iterate through the main loop until a termination criterion is met (e.g., maximum iterations reached): <ul style="list-style-type: none"> <li>Update velocities and positions of particles.</li> <li>Evaluate fitness of new positions.</li> <li>Update local and global best solutions.</li> </ul> </li> </ul>
6.	<b>Termination Check:</b>	<ul style="list-style-type: none"> <li>Check if the termination criterion is met. If yes, proceed to step 9 (End); otherwise, continue to the next iteration.</li> </ul>
7.	<b>Output Best Solution:</b>	<ul style="list-style-type: none"> <li>Output the best solution found, i.e., the graph coloring with the minimum number of conflicts.</li> </ul>