Problem - 5 (Spring 2026)

Due date: 24 February, 2026

5a. Generate a nearest-neighbor map of N particles in a cubic box of length L. Use $L = 28$, $N = 1000$, and the nearest-neighbor distance $r_n = 2.8$.

5b. Use the map above to generate a generalized neighbor map of up to k shells, as discussed in the class. Choose $k = 10$.