

```
void accel_on_all_bodies()
{
    int i, j;
    float3 acc(0.0f, 0.0f, 0.0f);

    for (i = 0; i < N; i++) {
        for (j = 0; j < N; j++) {
            acc = body_body_interaction(acc, body[i], body[j]);
        }
        accel[i] = acc;
    }
}
```

FIGURE C.8.12 Serial code to compute all pair-wise forces on N bodies.