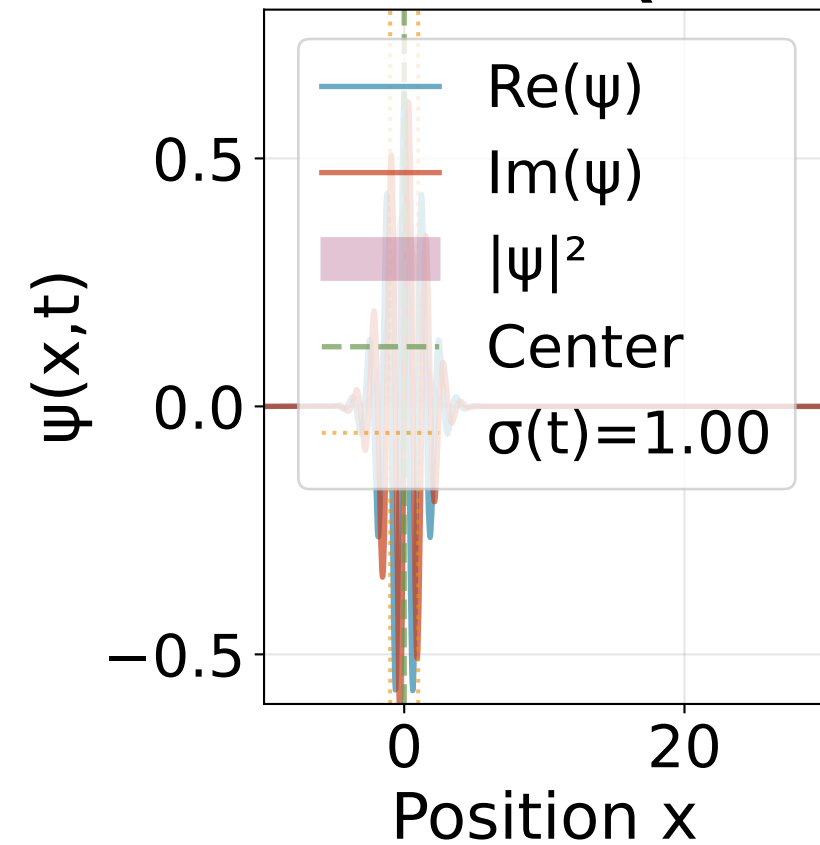
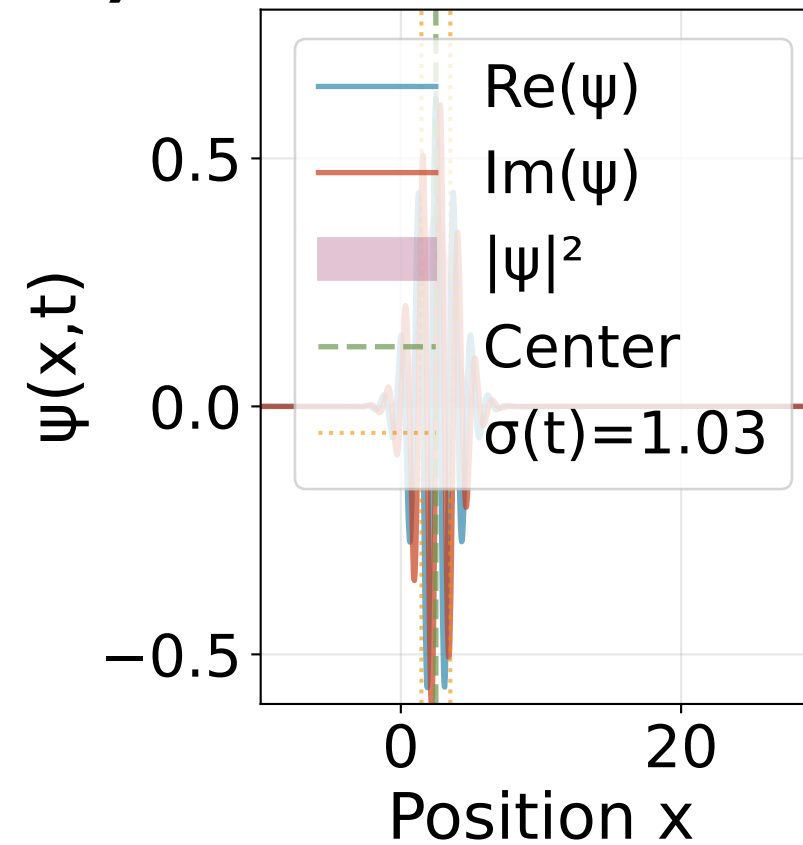
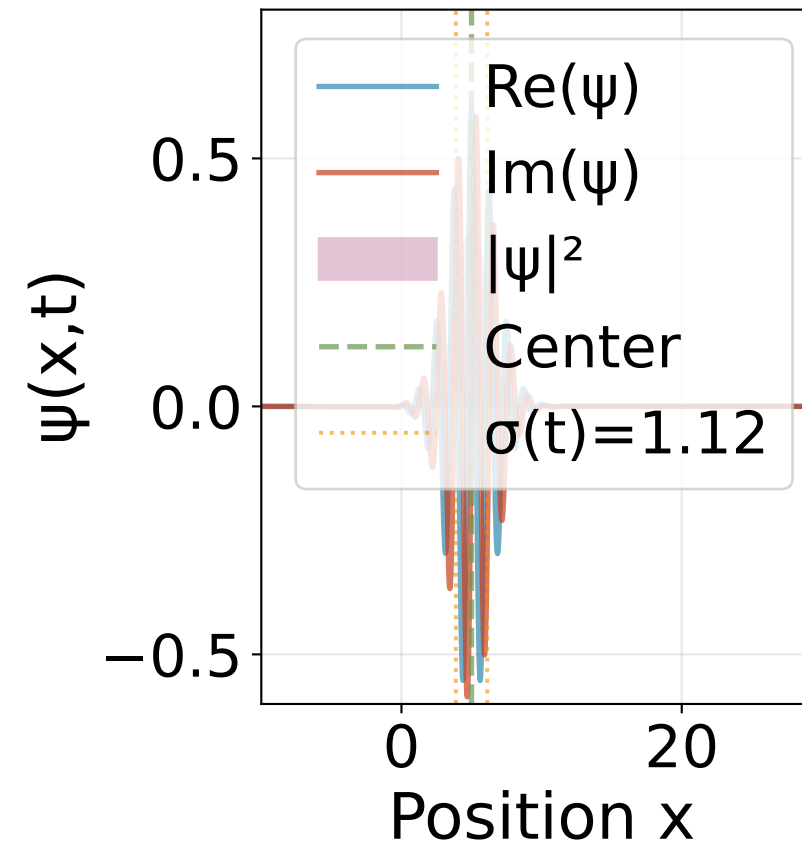
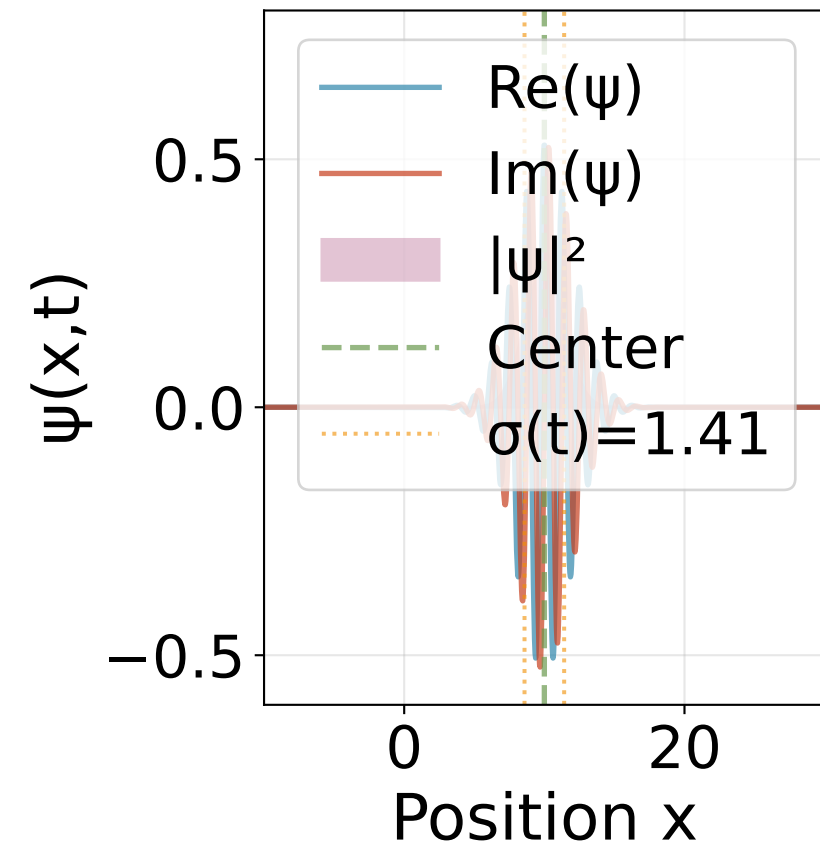
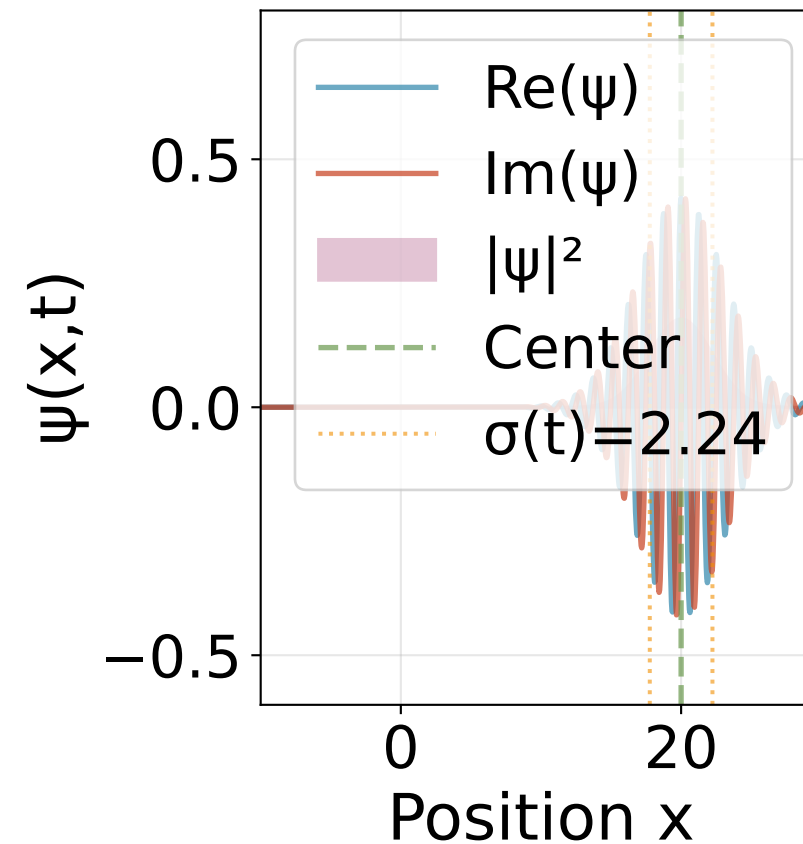


Time $t = 0.0$ ($\tau = 2.0$)**Time $t = 0.5$** **Time $t = 1.0$** **Time $t = 2.0$** **Time $t = 4.0$** **Wave Packet Evolution:**

- Purple: Probability density $|\psi|^2$
- Blue: Real part of ψ
- Red: Imaginary part of ψ
- Green dashed: Packet center
- Orange dotted: Width $\sigma(t)$

Key observations:

1. Center moves at $v_g = p_0/m$
2. Packet spreads: $\sigma(t)$ increases
3. Oscillations persist (momentum)
4. Probability stays normalized