

Fig. C.1. Phase-space distributions ρ_S (top), ρ_D (middle), and their product $\rho_S \rho_D$ (bottom) together with the marginal distributions of ρ_S and ρ_D . The two columns differ only in the spatial mean x_S of ρ_S . Units are used in which $\hbar = 1$.

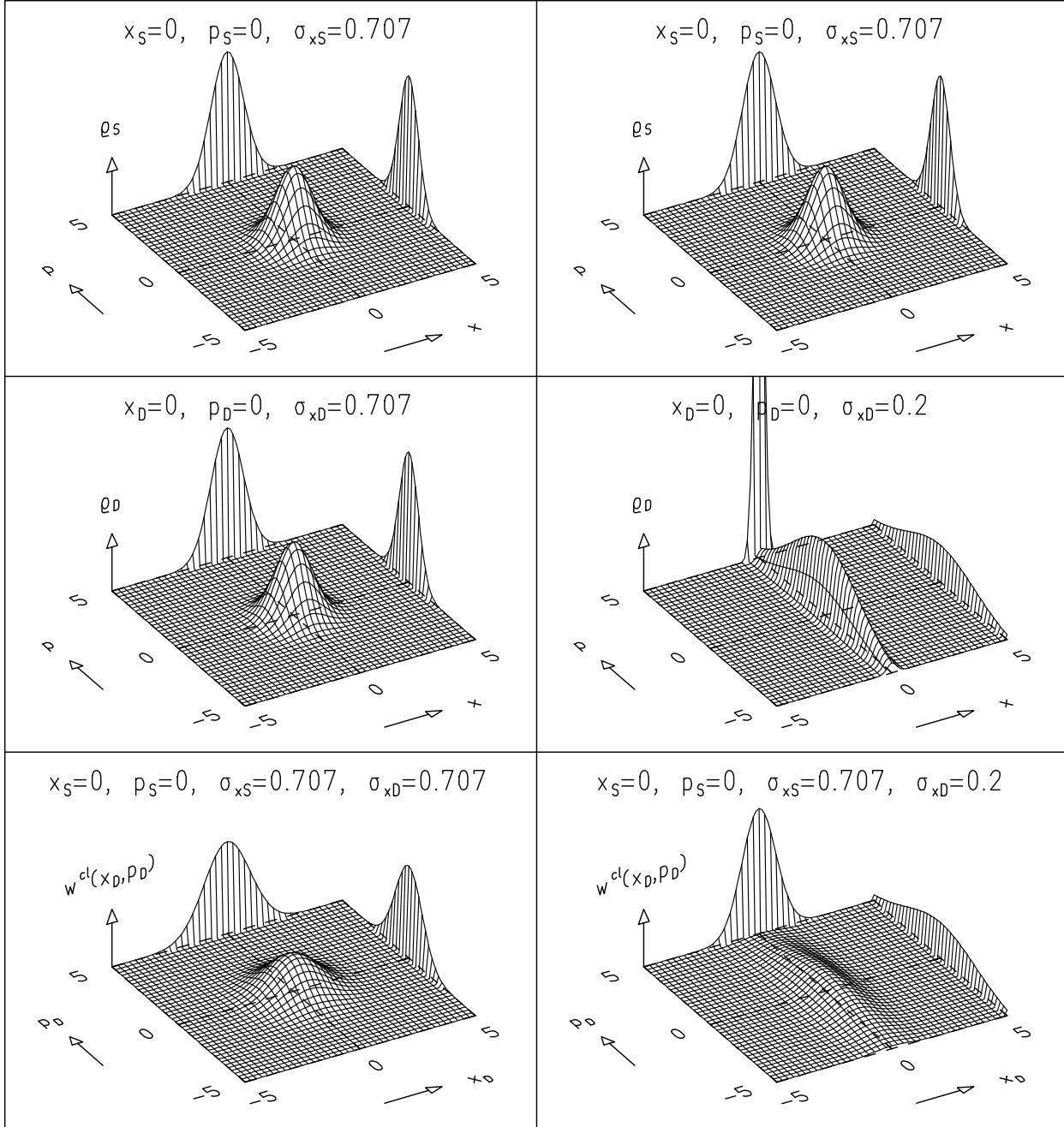


Fig. C.2. The phase-space distribution ρ_S (top), the distribution ρ_D for a particular point (x_D, p_D) of mean values (middle), and convolution of ρ_S with ρ_D for all possible mean values (bottom). Also shown are the marginal distributions. The two columns differ in the widths of ρ_S . Units $\hbar = 1$ are used.

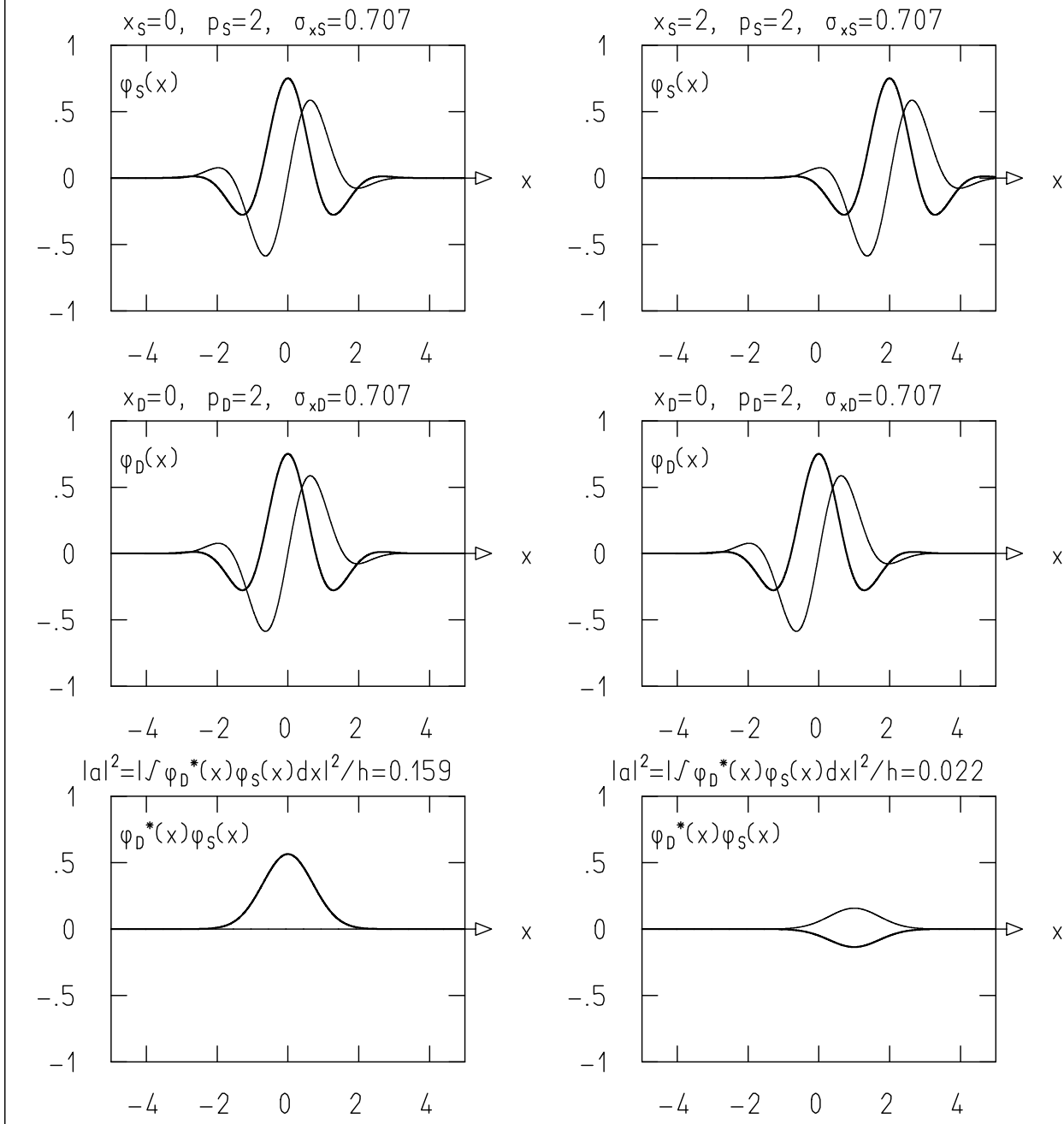


Fig. C.3. Wave function φ_S (top) and φ_D (middle) and the product function $\varphi_D^*\varphi_S$ (bottom). Real parts are drawn as thick lines, imaginary parts as thin lines. The two columns differ in the mean value x_S of φ_S . Units $\hbar = 1$ are used.

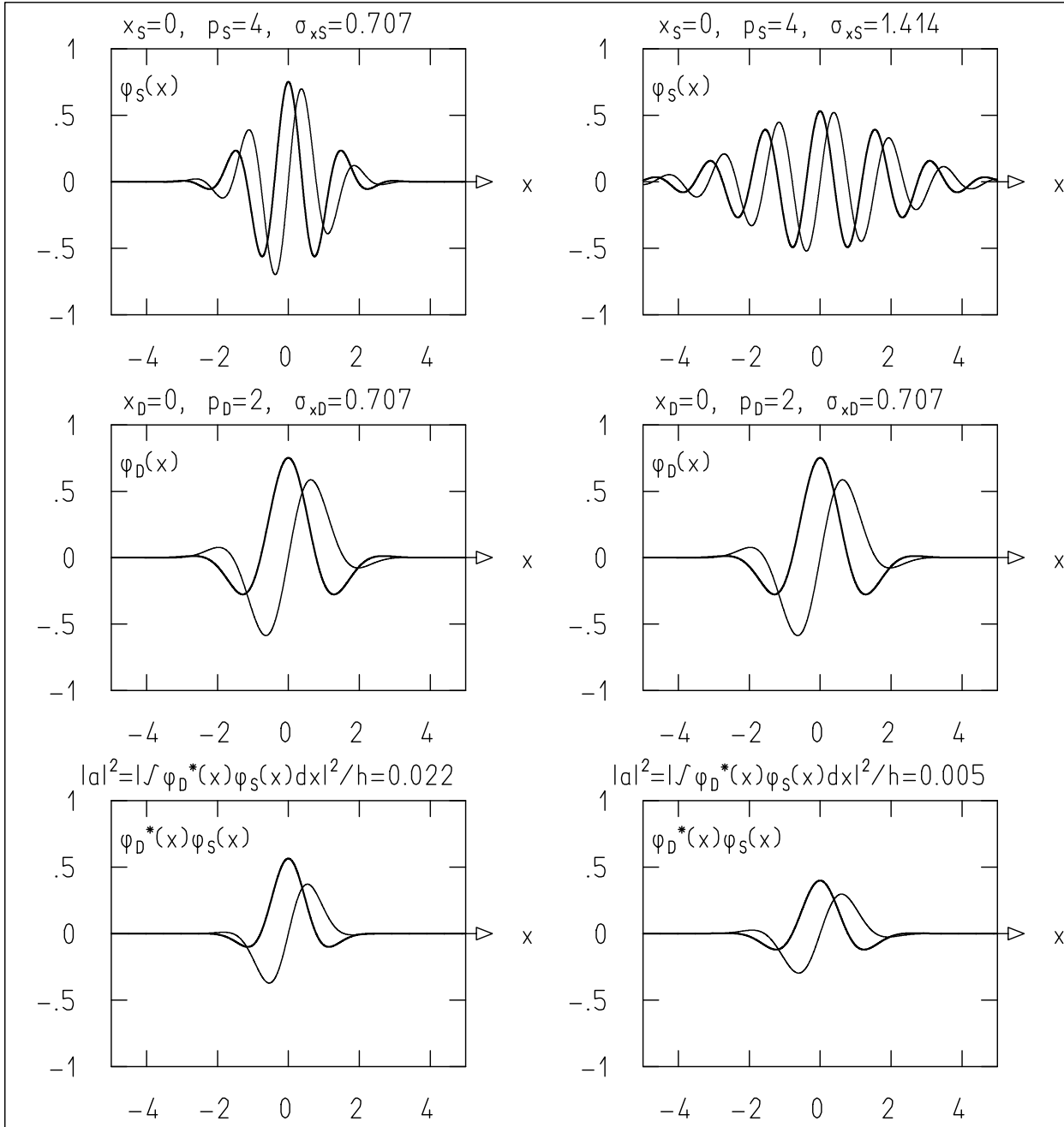


Fig. C.4. As Figure C.3 but for different functions ψ_S . The two columns differ only in the value of σ_{xS} .

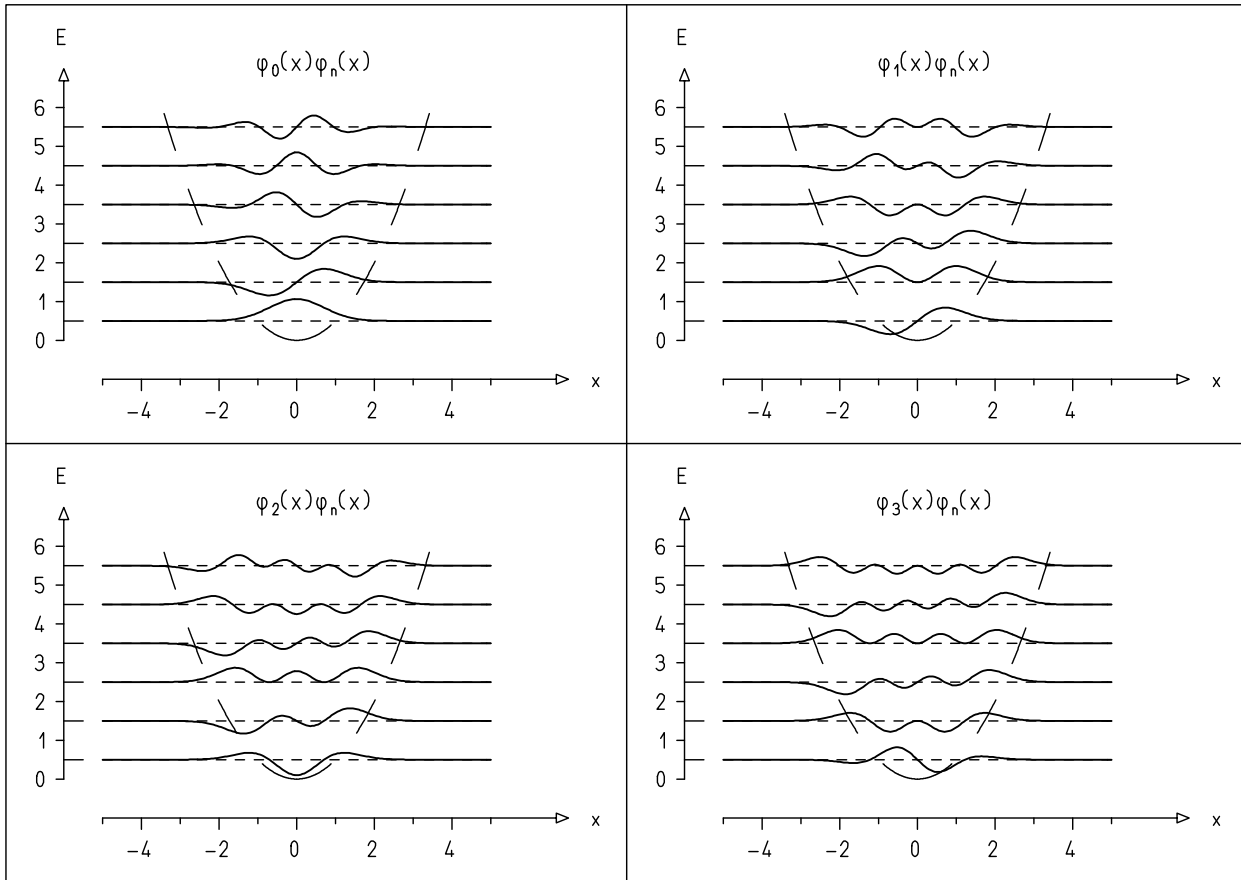


Fig. C.5. Product $\varphi_m(x)\varphi_n(x)$ of the wave functions of the harmonic oscillator for $\hbar\omega = 1$. The long-dash curve indicates the potential energy $V(x)$, the short-dash lines show the energy eigenvalue E_n of the functions φ_n . These lines also serve as zero lines for the product functions.

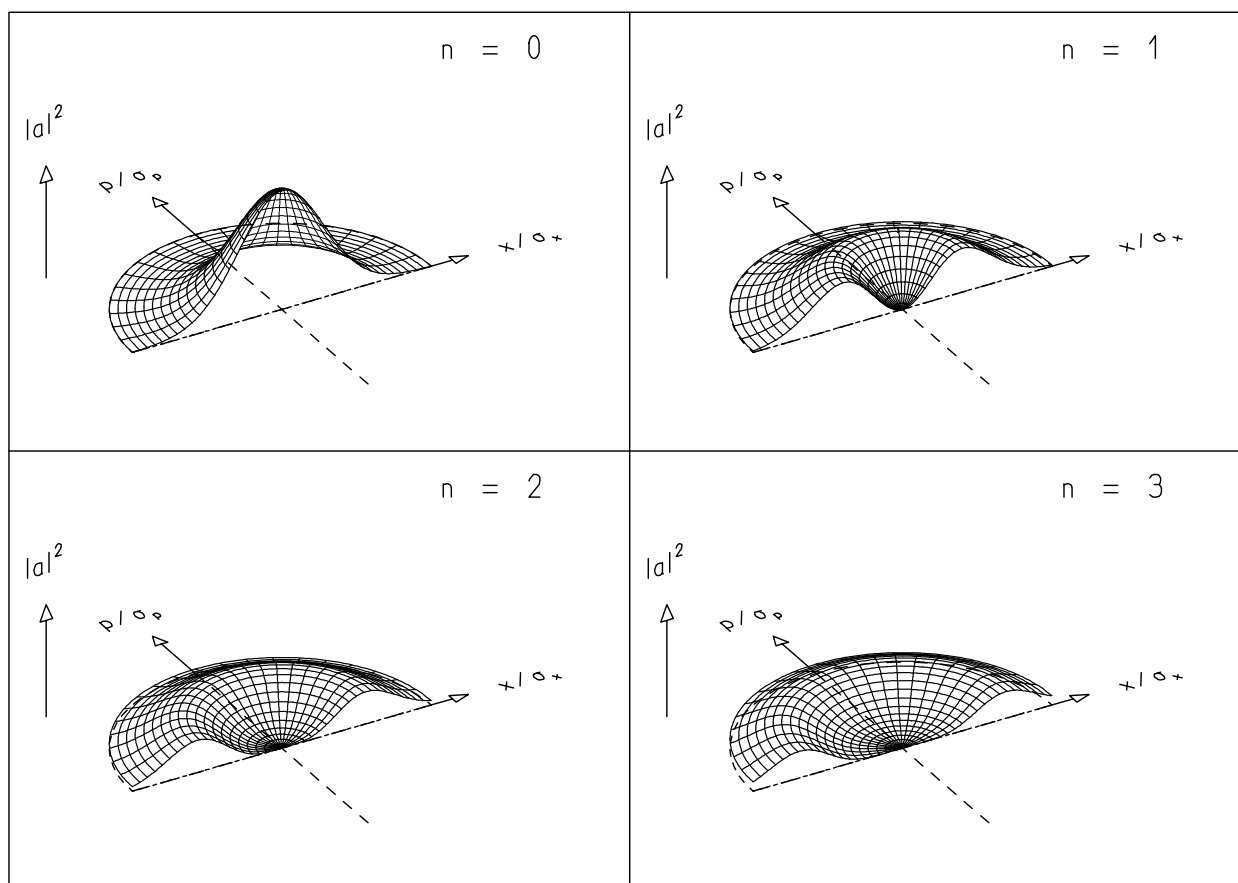


Fig. C.6. Absolute square $|a(x_D, p_D, n)|^2$ of the amplitude analyzing the harmonic-oscillator eigenstate $\varphi_n(x)$ with a coherent state of position and momentum expectation value x_D and p_D .