



Fig. 15.2 Behavior of γ_{xx} and γ_{zz} as functions of x .

$$\dot{\rho}_{ee} = -4\gamma \rho_{ee},$$

$$\dot{\rho}_{as} = -2(\gamma + i\Omega)\rho_{as},$$

$$\dot{\rho}_{aa} = -2\gamma^-(\rho_{aa} - \rho_{ee}),$$

$$\dot{\rho}_{eg} = -2(\gamma + i\omega_0)\rho_{eg},$$

$$\dot{\rho}_{ss} = -2\gamma^+(\rho_{ss} - \rho_{ee}),$$

$$\gamma^\pm = \gamma \pm \gamma_{12}.$$

$$\rho_{ee}(t) = \rho_{ee}(0)e^{-4\gamma t}, \quad \rho_{eg}(t) = e^{-2(\gamma + i\omega_0)t} \rho_{eg}(0),$$

$$\rho_{as}(t) = e^{-2(\gamma + i\Omega)t} \rho_{as}(0),$$

$$\rho_{ss}(t) = \rho_{ss}(0)e^{-2\gamma^+ t} + \rho_{ee}(0) \frac{\gamma^+}{\gamma^-} (e^{-2\gamma^+ t} - e^{-4\gamma t}),$$

$$\rho_{aa}(t) = \rho_{aa}(0)e^{-2\gamma^- t} + \rho_{ee}(0) \frac{\gamma^-}{\gamma^+} (e^{-2\gamma^- t} - e^{-4\gamma t}).$$

