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Superconducting Gap of the Two-Dimensional d–p Model with Small U_d

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Equations (11), (12), and (14) should be replaced by the followings.

$$\Delta_{\boldsymbol{k}} = -\frac{1}{2} z_{\boldsymbol{k}}^0 \sum_{\boldsymbol{k}'} V_{\boldsymbol{k}\boldsymbol{k}'}^{dd} \frac{z_{\boldsymbol{k}'}^0 \Delta_{\boldsymbol{k}'}}{\sqrt{(\varepsilon_{\boldsymbol{k}'}^0 - \mu)^2 + \Delta_{\boldsymbol{k}'}^2}}, \tag{11}$$

$$\Psi_{\boldsymbol{k}} = \log \Delta_{\mathrm{sc}} \cdot z_{\boldsymbol{k}}^0 \sum_{\boldsymbol{k}'} V_{\boldsymbol{k}\boldsymbol{k}'}^{dd} z_{\boldsymbol{k}'}^0 \delta(\varepsilon_{\boldsymbol{k}'}^0 - \mu) \Psi_{\boldsymbol{k}'}, \tag{12}$$

and

$$\Psi_\theta = \log \Delta_{\mathrm{sc}} \cdot z_{\mathrm{F}}(\theta) \int_0^{2\pi} V_{\mathrm{F}}^{dd}(\theta, \theta') z_{\mathrm{F}}(\theta') \rho_{\mathrm{F}}(\theta') \Psi_{\theta'} \mathrm{d}\theta'. \tag{14}$$

Due to these errors, Figs. 4 and 5 also should be replaced.

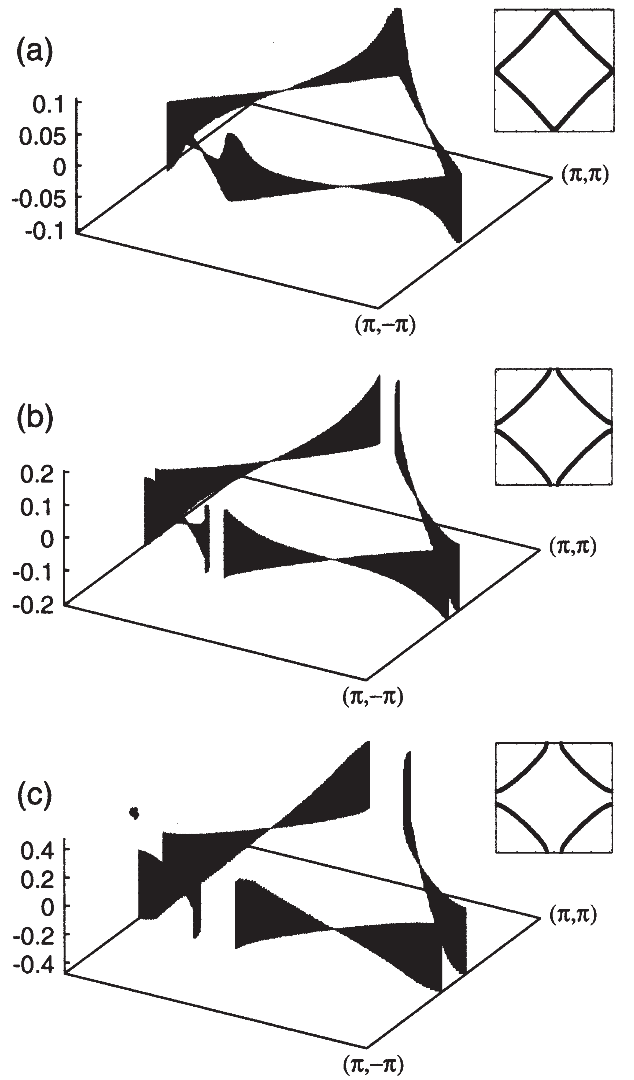

Fig. 4. Ψ_θ on the Fermi surfaces. The parameters for (a), (b) and (c) are the same as those in Figs. 3(a), 3(b) and 3(c), respectively. The insets represent their Fermi surfaces.

These do not alter the claim that, $\log \Delta_{\mathrm{sc}}$ increases even with a small U_d when the system approaches the condition in which the d-electrons' density of state has Van Hove singularity. However, in Fig. 5, we can find that at $t_{pp} = 0.01$ and 0.02, $\log \Delta_{\mathrm{sc}}$ can be larger than the other cases. This is caused by $z_{\mathrm{F}}(\theta)$ in eq. 14, which strongly depends on t_{pp}.

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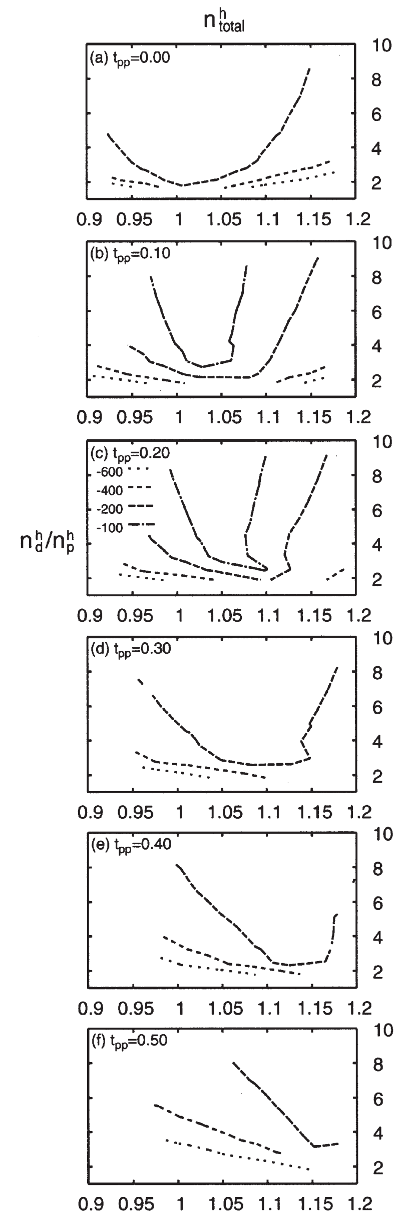

Fig. 5. Contour maps of $\log \Delta_{\mathrm{sc}}$ for the most stable superconducting state at $U_d = 0.10$.