Ground-state $|d,\chi\rangle \otimes \gamma$

$\frac{V}{t_\perp}$ **vs** $\frac{U_b}{t_\perp}$	3-orbital
$\frac{U_b}{t_\perp} \to 0$, $\frac{V}{t_\perp} \to 0$	$(\|\sigma,0\rangle + \alpha \|0,\sigma\rangle) \otimes \|2\rangle$
$\frac{U_b}{t_\perp} \to 0$, $\frac{V}{t_\perp}$ large	$(\|0,2\rangle + \alpha \|SS\rangle) \otimes \|2\rangle$
$\frac{U_b}{t_\perp}$ large, $\frac{V}{t_\perp} \to 0$	$(\|\sigma,0\rangle + \alpha \|0,\sigma\rangle) \otimes \|0\rangle$
$\frac{U_b}{t_\perp} \to 0$, $\frac{V}{t_\perp}$ large	$(\|0,2\rangle + \alpha \|SS\rangle) \otimes \|0\rangle$

Ground-state $|d,\chi\rangle \otimes \gamma$

$\frac{V}{U_b}$ **vs** $\frac{t_\perp}{U_b}$	3-orbital
$\frac{t_\perp}{U_b} \to 0$, $\frac{V}{U_b} \to 0$	$(\|\sigma,0\rangle + \alpha \|0,\sigma\rangle) \otimes \|0\rangle$
$\frac{t_\perp}{U_b} \to 0$, $\frac{V}{U_b}$ large	$(\|0,2\rangle + \alpha \|SS\rangle) \otimes \|0\rangle$
$\frac{t_\perp}{U_b}$ large, $\frac{V}{U_b} \to 0$	$(\|\sigma,0\rangle + \alpha \|0,\sigma\rangle) \otimes \|2\rangle$
$\frac{t_\perp}{U_b} \to 0, \frac{V}{U_b}$ large	$(\|0,2\rangle + \alpha \|SS\rangle) \otimes \|2\rangle$

Ground-state $|d,0\rangle$

e-SIAM
Hubbard Sideband: $\|0,0\rangle, \|2,2\rangle, \|CS\rangle$
Central Peak : $\|ss\rangle, \|\sigma,0\rangle, \|\sigma,2\rangle$