Erratum: Second generation of composite fermions in the Hamiltonian theory [Phys. Rev. B 69, 155324 (2004)]

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A factor $n_B^* = 1/2\pi l_B^{*2}$ is missing in Eq. (8). Its corrected version is

$$\mathcal{F}_n^p(q) = n_B^* \sum_{n'=p-n}^{p-1} |\langle n' + n|\overline{\rho}^p(\mathbf{q})|n'\rangle|^2.$$

This error has led to an overestimation of the screening effect due to inter-composite-fermion-Landau-level excitations. Consequently, screening affects the values of the activation gaps less than originally thought. The corrected values for the gaps with $s=1$ and $p=1$ are

$\widetilde{s}=1$	$\widetilde{p}=1$	$\widetilde{p}=2$		$\widetilde{s}=2$	$\widetilde{p}=1$	$\widetilde{p}=2$
ν^*	$1+1/3$	$1+2/5$		ν^*	$1+1/5$	$1+2/9$
ν	$4/11$	$7/19$		ν	$6/17$	$11/31$
Δ^a	0.018	0.0064		Δ^a	0.011	0.0052

and for $s=2$ and $p=1$,

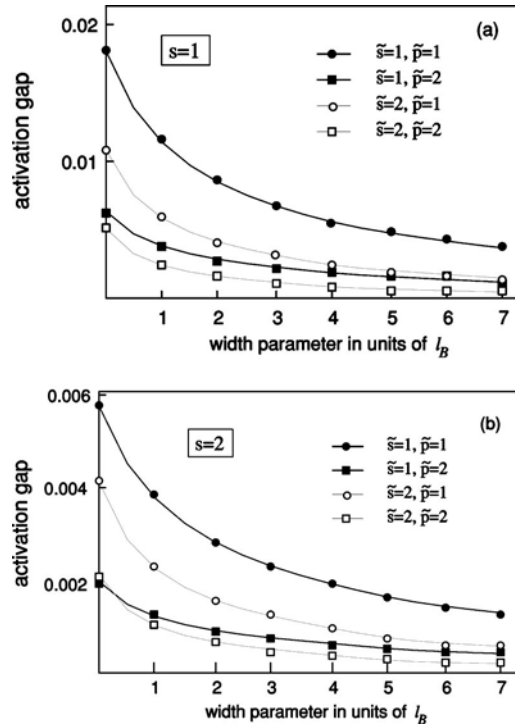| $\widetilde{s}=1$	$\widetilde{p}=1$	$\widetilde{p}=2$		$\widetilde{s}=2$	$\widetilde{p}=1$	$\widetilde{p}=2$
ν^*	$1+1/3$	$1+2/5$		ν^*	$1+1/5$	$1+2/9$
ν	$4/19$	$7/33$		ν	$6/29$	$11/53$
Δ^a	0.0057	0.0020		Δ^a	0.0041	0.0021

in units of $e^2/\epsilon l_B$.

FIG. 1. Activation gaps as a function of width parameter for different fillings. (a) $s=1$: $\nu=4/11$ (black circles), $\nu=6/17$ (white circles), $\nu=7/19$ (black squares), and $\nu=11/31$ (white squares); (b) $s=2$: $\nu=4/19$ (black circles), $\nu=6/29$ (white circles), $\nu=7/33$ (black squares), and $\nu=11/53$ (white squares).
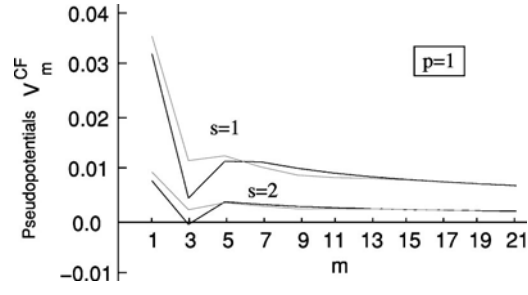
FIG. 2. Haldane's pseudopotentials for CF interaction both without screening (black line) and with screening (gray line); the lines are a guide to the eyes.

The corrected figures may be found in Figs. 1 and 2. The theoretical estimate for the activation gap at $\nu=4/11$ for a width parameter $\lambda \simeq 6.3 l_B$ is $\Delta^a(s=1; \tilde{s}=\tilde{p}=1) \simeq 0.004 e^2 / \epsilon l_B$, which is on the order of 600 mK. The characteristic minimum of V_3^{CF} persists even in the presence of screening (Fig. 2). The physical interpretation in the paper remains unchanged.