For the present model $U = \infty$, we observe the following: when the Zeeman interaction $\Delta$ is small, we do not expect significant changes with respect to the results obtained for $\Delta = 0$.

For large values of the Zeeman interaction , $\frac{g_{||}\mu_B B_{||}}{E_F} > 1$, the effect of the constraint is negligible. This can be seen from the bias field $\Delta x$ which induces a space dependent oscillation for the constraint $Q_1^{Zeeman}(x)$ in equation (43) . Due to the oscillations we obtain, $Q_1^{Zeeman}(x) \approx 0$. The wire Hamiltonian is replaced by an unconstrained polarized wire $H_{wire} \approx H_{wire}^{(\uparrow)} = \int_{\frac{-d}{2}}^{\frac{d}{2}} dx[\frac{\hbar(v+\frac{\Delta}{2})}{2}(\partial_x\varphi_\uparrow(x))^2 + (\partial_x\vartheta_\uparrow(x))^2]$ Therefore, we recover the robust 0.5 plateau in agreement with [22].

## 8. Conclusion

We have solved the problem of exclusion of double occupancy using Dirac's method for constraints. We have found that the anomalous commutation rules are modified causing the conductance to be anomalous. Applying this theory to quantum wires, we show that our theory can explain the anomalous conductance observed by [14, 16–18] and is in agreement with the Monte-Carlo simulation reported in refs.[21, 22].