

Abstract Submitted  
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**Universal DC Hall conductivity of Jain's state  $\nu = \frac{N}{2N\pm 1}$** <sup>1</sup> DUNG NGUYEN, DAM SON, Univ of Chicago — We present the Fermi-liquid theory of the fractional quantum Hall effect to describe Jain's states with filling fraction  $\nu = \frac{N}{2N\pm 1}$ , that are near half filling. We derive the DC Hall conductivity  $\sigma^H(\mathbf{k})$  in closed form within the validity of our model. The results show that, without long range interaction, DC Hall conductivity has the universal form which doesn't depend on the detail of short range Landau's parameters  $F_n$ . When long range interaction is included, DC Hall conductivity depends on both long range interaction and Landau's parameters. We also analyze the relation between DC Hall conductivity and static structure factor.

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