

Abstract Submitted  
for the MAR10 Meeting of  
The American Physical Society

**The fate of 1D spin-charge separation away from Fermi points**

THOMAS SCHMIDT, Yale University, ADILET IMAMBEKOV, Rice University,  
LEONID GLAZMAN, Yale University — The momentum-resolved dynamic re-  
sponses of a one-dimensional (1D) electron liquid are singular at the spectrum of the  
lowest-energy excitation branch, ie. at the spinon spectrum. These power-law sin-  
gularities survive at arbitrary momentum. We express the corresponding exponents  
in terms of the spinon spectrum. Special attention is paid to the electron spectral  
function measured in tunneling experiments.

Thomas Schmidt  
Yale University

Date submitted: 19 Nov 2009

Electronic form version 1.4