Some Integral Formulas for Bethe Ansatz
Solvable Interacting Particle Systems
on 1D

EUNGYUN LEE
UC Davis

Abstract. Besides the asymmetric simple exclusion process (ASEP) on 1D, we may use the coordinate Bethe Ansatz technique to solve the forward equations of the PushASEP and the asymmetric avalanche process (ASAP) as well as the asymmetric zero range process (AZRP) with constant rates which is known to be equivalent to the ASEP. We give the exact expression of the Bethe Ansatz solution for these non-determinantal models and discuss about the current distribution.