1030-60-234   **Yuliy Baryshnikov*** (`ymb@research.bell-labs.com`) and **Dan Romik**. *Planar tableaux in a strip as an exactly solvable model.*

Planar tableaux are generalizations of Young tableaux. We derive combinatorial formulas, involving the Bernoulli and Euler numbers, for the number of planar tableaux of certain shapes. This generalizes the classical formulas of D. Andre on the number of up-down permutations. The analysis uses a transfer operator approach extending the method of Elkies. (Received August 03, 2007)