Quantum Hall transition on a triangular lattice; network model and analytical renormalization-group treatment\textsuperscript{1} VAGHARSH MKHITARYAN, MIKHAIL RAIKH, Department of Physics, University of Utah, Salt Lake City, UT 84112 — Common approach to the theoretical study of the quantum Hall transition is the Chalker-Coddington network model on the square lattice. We introduce a new version of the network model formulated on the triangular lattice, where the scattering at the sites is described by $3 \times 3$ matrix. Extending renormalization-group description of the classical site percolation to the quantum case, we derive a closed equation for the distribution function of conductance. Solving this equation numerically, we get for the critical exponent of the correlation radius $\nu \approx 2.3 \pm 0.76$ in good agreement with established value $\nu = 2.33$.

\textsuperscript{1}Supported by the BSF grant No. 2006201