



Some properties of surface waves in the Solar chromosphere

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Some properties of large-scale waves in the Solar atmosphere are studied. We took into account an influence of boundary conditions on the lower chromosphere for the large-scale waves and especially for the surface waves near the transition region temperature jump. A dispersion equation for the surface waves near the temperature jump, which is also correct for describing the structures comparable with height of homogeneous atmosphere, is analyzed. The explanation of known experimental data directed to the wave perturbations on the Solar surface is proposed. The estimations are showed that the perturbation scales and the characteristic times of the waves correspond well to the experimentally observed values.

The method of the analytical solution of the wave perturbations propagation in the Solar atmosphere with the realistic high-altitude temperature profile is proposed. The analytical solutions, which correspond to real models, are found. The possibility of their use for the interpretation of experimental data is studied. The numerical analysis of the solutions is produced by means of Riccati's type equation for the realistic temperature distributions.