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The propagation of magneto elastic waves in double-layer system in conditions of sliding contacts ARTYOM DAVTYAN, Mr., MELS BELUBEKYAN, Professor, THE NATIONAL ACADEMY OF SCIENCES OF ARMENIA TEAM — This article takes an insight into the problem of the propagation of waves in the double layer system. The physical-mechanical properties and thicknesses of layers are different. The conditions of sliding contact take place on the outer surfaces and on the contact surfaces of layers that means they can slide over each other freely. As a result, the dispersion equation is obtained. The case when the physical-mechanical properties and thicknesses of layers are the same, the dispersion equation is obtained, which in it's turn is divided into three independent dispersion equations. The two of them state the independent distribution of waves in the layers, and the third dispersion equation states the simultaneous distribution of the waves by double layers. In case of short waves interfacial Stoneley type waves are received (waves that are localized near the layers separating surface). The results of the numerical calculations are given for the waves mentioned last, which describe the dependence between phase velocity and relative thickness of layer and Poisson coefficient.

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