Collective modes in a Half-Metallic Ferromagnet[1] RAUL CHURA, KEVIN BEDELL, Boston College — By using the Theory of Spin-polarized Fermi liquids, we study the spin dynamics of a model for a Half-metallic ferromagnet. We formulate the corresponding kinetic equation and solve it to determine the collective modes of the model. We calculate the velocities of these modes and also study the associated dispersion relations and spin stiffness. We compare the results obtained through this approach with the ones obtained through the application of the Greens functions method. We discuss the results in the context of the currently available experimental data.

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