Effects of Controller and Cubic Temperature Gradient on Rayleigh-Bénard-Marangoni-Magnetoconvection in a Micropolar Fluid with Maxwell-Cattaneo Law.

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- **Abstract:** Using the Galerkin approach, linear stability analysis is employed to investigate the effects of cubic temperature gradient and linear feedback control on the start of Rayleigh-Bénard-Marangoni-Magnetoconvection in a micropolar fluid having the Maxwell-Cattaneo Law. It has been demonstrated that the utilization of linear feedback control can postpone the convection onset.

- Keywords: linear stability analysis, Maxwell-Cattaneo Law, micropolar fluid, Magnetoconvection