

## PAPER (1)

### Time varying rotating disk flow and heat transfer through a porous medium of a non-Newtonian fluid with suction and injection

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#### SUMMARY

The time varying flow of an incompressible viscous non-Newtonian fluid above an infinite rotating porous disk in a porous medium is studied with heat transfer. A uniform injection or suction is applied through the surface of the disk. Numerical solutions of the nonlinear partial differential equations which govern the hydrodynamics and energy transfer are obtained. The effect of the porosity of the medium, the characteristics of the non-Newtonian fluid and the suction or injection velocity on the velocity and temperature fields is considered.