

Poster at Splinter Meeting

Splinter L

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The shearsheet is a convenient way to calculate local effects within a disk. Here, the implementation and testing of the shearsheet within Fosite is described whereby self-gravitation and cooling is assumed. The tests reveal that the choice of limiter can lead to major numerical impacts due to oversteepening, especially when using the superbee limiter. The resultant absolute error in the density profile is thereby scaled up by the self-gravitational part. Since topics like the fragmentation criterion are still under active research, this might be an artificial source of error which should be avoided. Future investigations are shortly described. They include the measurement of the parametrization of alternative viscosity descriptions like the β -viscosity in order to calculate viscous self-gravitating accretion disks over long timescales and large distances.