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Close Binary Systems / Cataclysmic Variables (2012)

Close Binary Systems
Radial velocities, system parameters, etc
Eclipsing binaries
Orbital period variations
Roche Lobe
Mass transfer; formation of accretion disks
Emission lines from disks. I

Cataclysmic Variables as Binary Systems
Classification
Standard Model
Evolution of CV's
Examples (U Gem, Z Cha, UX UMa, DQ Her)

Accretion Disks
Model equations
Vertical structure, α – disks, thermal instability
Dwarf nova outbursts
Boundary layer
Emission lines. II, Doppler tomography

Magnetic CV's
Polars
Intermediate polars

CV's with variable M
VY Scl stars
UX UMa, RW Tri
Irradiation controlled mass transfer

Dwarf nova subtypes:
Z Cam stars
SU UMa stars - Superoutbursts and superhumps

AM CVn stars – helium CV's

Nova outbursts

Disks/rings in Algols