likelihood method is applied to get model parameters such as central potential, anisotropy radius, and total mass fractions in each mass class. This method can avoid problems in conventional binning method of chi-square. We utilize three velocity components, one from line of sight radial velocity and two from proper motion data. In our simplified scheme we adopt 3 mass-component model with unseen high mass stars, intermediate visible stars, and low mass dark remnants. Likelihood values are obtained for 124 stars in M13 for various model parameters. Our prefered model shows central potential of $W_0 = 7$ and anisotropy radius with 7 core radius. And it suggests non-negligible amount of unseen high mass stars and considerable amount of dark remnants in M13.

우리은하의 적외선 모형 II

강 용 희

경북대학교 사범대학 지구과학교육과

적외선 천문위성 (IRAS)의 관측자료를 이용하여 12 μm 적외선원의 계수를 통하여 우리은하 전반에 걸친 이들의 분포를 얻고, 이를 맞추는 우리은하의 구조모형을 찾아냈다. 이 모형에서 우리은하는 두가지 구성 성분, 즉, 구형선분과 원반선분으로 이루어진 것으로 보았다.

IRAS의 관측과 지상관측을 통하여 확인된 장주기의 OH/IR 별의 광도함수 뿐만 아니라 Habing (1988)이 제시한 2원 종족 (two populations) 광도함수를 적용한 모형도 함께 검토하였다.

MAGNETIC CONFINEMENT OF THE OPTICAL JETS IN YOUNG STELLAR OBJECTS

S. -U. CHOE

Department of Earth Sciences, Seoul National University

We discuss a model for collimating plasma outflow from a young stellar object via an axial current initiated by collisionally charged dust grains incorporated in the ionized outflow from the central object. The charged grains generate an electric current in response to their greater reaction to the radiation field of the central star and their large mobility with respect to the plasma. This produces a pinching toroidal magnetic field $\sim 10^{-3}$ Gauss in the base flow. A simple self-similar, steady state MHD solution shows that a well collimated jet can result, when $\beta = C_s^2/V_A^2 \lesssim 1$ at the critical point in the flow, provided this pinch is only marginally overbalanced there by the gas pressure and centrifugal acceleration associated with any rotation of the jet.

VELOCITY INHOMOGENEITY OF THE COMA CLUSTER OF GALAXIES

K. -T. Kim

Department of Astronomy and Space Science, Chungnam National University

A velocity inhomogeneity, which is the regional preponderence of either radial or