

그리고, 처음으로, 이들 천이선으로부터 적색이동과 청색이동된 성분을 분리하여 이들 성분이 2' N 위치에 대하여 대칭적으로 분포하며 이들 각 성분의 지름은 약 4-5pc 이고 무게는 약 $10^4 M_{\odot}$ 임을 알았다. 이 적색이동과 청색이동을 보이는 성분은 2' N점을 향하여 약 30 km s^{-1} 로 접근하고 있다. 자유낙하 타임스케일은 약 10^5 년이며 막대한 에너지를 감안 할 때 다음 세대의 별탄생이 예상되고 있다. 이러한 활동성이 이 지역에 특정 분자의 양이 증가되는 특이 화학현상을 일으키는 것으로 추측된다.

A COMPARISON OF THE INTRINSIC SHAPES OF TWO DIFFERENT TYPES OF DWARF GALAXIES BLUE COMPACT DWARFS AND DWARF ELLIPTICALS

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We measure the apparent shapes for a sample of 62 blue compact dwarf galaxies (BCDs), and compare them with the apparent shapes for a sample of 80 dwarf elliptical galaxies (dEs). The BCDs are flatter, on average, than the dEs, but the difference is only marginally significant. We then use both non-parametric and parametric techniques to determine possible distributions of apparent shapes for the BCDs. The hypothesis that BCDs are oblate spheroids can be ruled out a high confidence level ($> 99\%$), but the hypothesis that they are prolate spheroids cannot be excluded. The apparent shapes of BCDs are totally consistent with the hypothesis that they are triaxial ellipsoids. If the intrinsic axis ratios, β and γ , are distributed according to a Gaussian with means β_0 and γ_0 and standard deviation σ , we find the best-fitting distribution for BCDs has $(\beta_0, \gamma_0, \sigma) = (0.66, 0.55, 0.16)$, while that for dEs has $(\beta_0, \gamma_0, \sigma) = (0.85, 0.64, 0.24)$. Our results are consistent with the hypothesis that BCDs have a close evolutionary relation with dEs.

SECULAR EVOLUTION AND DISK LUMINOSITY PROFILES

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Secular evolutions are thought to be prevalent in disk galaxies, especially in the galaxies with bars or ovals. Redistribution of disk mass by barlike potentials changes galaxy