1992; MacKenty et al. 1994). **Radio-jet galaxies** (e.g., Colina & Pérez-Fournon 1990*a*,*b*; de Juan et al., 1993; Colina & de Juan 1995; Colina & Borne 1995). **Powerful Radio Galaxies** (e.g., Heckman et al. 1986; Smith & Heckman 1989*a*,*b*, 1990*b*; cf., Smith & Heckman 1990*a*). **Low-luminosity Radio Galaxies** (e.g., de Juan et al., 1994). **GHz-peaked-spectrum Radio Galaxies** (Stranghellini et al. 1993). **Actively Star-forming Galaxies** (= Starbursts; e.g., Joseph & Wright 1985; Bushouse 1986; Kennicutt et al. 1987; Kennicutt 1990; Smith & Kassim 1993; Keel 1993; Smith et al. 1995; Borne et al. 1995, 1996*b*). **IR-luminous Galaxies** (e.g., Sanders et al. 1988*a*,*b*; Lawrence et al. 1989; Armus 1989; Melnick & Mirabel 1990; Carico et al. 1990; Hutchings & Neff 1991, 1992*a*; Majewski et al. 1993; Gallimore & Keel 1993; Leech et al. 1994; Liu & Kennicutt 1995*a*,*b*; Borne et al. 1996*c*). **Galaxies with Centrally Concentrated Molecular Gas** (e.g., Sargent & Scoville 1991; Scoville et al. 1991).

b) Theoretical Studies:

Noguchi & Ishibashi (1986); Byrd et al. (1986, 1987); Lin, Pringle, & Rees (1988); Noguchi (1988*a*,*b*, 1991, 1992); Hernquist (1989); Olson & Kwan (1990*a*,*b*); Barnes & Hernquist (1991); Mihos, Richstone, & Bothun (1991, 1992); Wada & Habe (1992); Hernquist & Weil (1992); W. & H. (1993); Mihos, Bothun, & Richstone (1993); Borne & Colina (1993); Bekki & Noguchi (1994); Bekki (1995); Heller & Shlosman (1994); Lamb, Gerber, & Balsara (1994); Mihos & Hernquist (1994*a*,*c*,*d*,*e*, 1996); Hernquist & Mihos (1995).

The numerical models used in these studies are now quite impressive in both power and realism. They are increasingly rich in physics (dynamical, hydrodynamical, and chemical). Such studies are consequently helping to answer in a positive way one of the fundamental questions that has arisen from the wealthy accumulations of observations on active galaxies: *Is activity in galaxies actually triggered by tidal interactions?*

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MARGINALLY BOUND COLLISIONS LEADING TO STARBURST ACTIVITY

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A previous study (Chatterjee 1996) of the effect of collision between a spiral, with high gasous content, and an equally massive compact elliptical, under marginally bound conditions, indicated the formation of an oval distortion in the disk of the spiral at the closest approach, which influences the motion of gas in the outer region of the disk, leading to mild activation. We have studied the subsequent orbital evolution of the elliptical. After the first grazing pericentric passage, the return of the perturber is characterized by a shrinking of the orbit and disk penetration, causing the activity to be strongly enhanced due to the reduced dynamical timescale. We find that the activity induced in the initial encounter is very mild; only in the second (return) encounter the activity is substantiated to be detectable easily. However, if we take the mild enhancement in star formation, due to the initial encounter, into account, then a slight enhancement of star formation indicators will be expected in many spirals. We find that the perturber is not in the vicinity of the spiral when the enhancement in star formation takes place, since the marginally bound orbit is of enormous proportions; such that many of these galaxies with a marginal enhancement in star formation will appear to be isolated; however, they will be in physically wide pairing with a distant companion. In this context, Chengalur et al. 1996, find evidence of very wide physically bound pairs; these pairs should be examined for mild enhancement in star formation indicators.

Chatterjee, T. K. 1996, ASP Conference Series, 91, 458, (IAU Col. 157)

Chengalur, J. N., Salpeter, E. E., & Terzian, Y. 1996, ApJ, 461, 564

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DWARF GALAXIES AROUND ULTRALUMINOUS *IRAS* GALAXIES

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The evolutionary sequence leading to massive star formation events in some galaxies is one of the most puzzling questions in astronomy. The mergers of gas-rich galaxies drive new supply of fuel deep into a galaxy and have been proposed as one source of en-