times of stellar systems. Given that relaxation times vary tremendously throughout any given stellar system (because of density gradients), and that they are sensitive to the spectrum of stellar masses, the suitability of many of the quoted relaxation times to the problems under study also varies greatly. Two frequently quoted time scales are the *central* relaxation time, typically derived from models fitted to density profiles, and a *mean* relaxation time within, say, the half-mass radius. These two time scales generally differ greatly and, depending on the issue being addressed, only one and quite possibly neither is the appropriate choice. In addition, one of the observationally most accessible indicators of dynamical evolution is the presence of mass segregation; clearly, in this case, the precise inclusion of a mass spectrum in the derivation of the evolutionary time scales is necessary, as well as recognition of the fact that the time scales will vary depending upon the stellar component in question. Indeed, as we begin to study the younger open clusters and Magellanic Cloud clusters, the proper treatment of the evolution times with respect to the mass spectrum becomes absolutely critical. Mathieu (1983) has discussed this point in detail with regard to the young open cluster M35; cf. also McNamara & Sekiguchi (1986).

Given the existing theoretical literature it is possible to compute properly the relevant time scales for most problems (to within the limits of our understanding of relaxation processes). However, the widespread use of mean relaxation times, such as eq.(3), indicates that this is not usually done. The community of cluster observers is in need of a sort of tutorial discussion of relaxation time scales, including both a review of the basic physics involved, and a set of straightforward procedures for calculating the appropriate evolutionary time scales for a range of problems. This exercise will not only be of great value for the general community, but will pose a challenging problem for stellar dynamicists as well. Several difficult issues will have to be addressed, including the very definition of relaxation time scales in the presence of density gradients, mass spectra and binaries. In addition a detailed comparison of the analytic theory and N-body simulations remains to be done. The work of Casertano *et.al.* (1986) is an important step in this direction. However, the detailed study of this difficult and fascinating problem should not unduly delay the preparation of a tutorial discussion for the use of the more general community studying stellar systems.

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