Comment on ''Local frequency analysis and the structure of classical phase space of the LiNC/LiCN molecular system'' [J. Chem. Phys. 108, 63 (1998)]

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Losada *et al.*[1] have recently applied the method of local frequency analysis (LFA),[2,3] as implemented by Laskar,[4] to study the classical phase space structure and dynamics in a two degree of freedom model for the floppy molecule LiCN/LiNC. The purpose of the present comment is twofold.

First, we note that the fast Fourier transform (FFT)-based approach to LFA as implemented in Refs. 2 and 3 is not a ''standard'' FFT method, as asserted in Ref. 1. In fact, the method involves fitting peak line shapes to a known form to obtain significantly higher frequency resolution (a factor of $\sim$400) than standard FFT methods. Details are given in Refs. 3, 5, and 6.

Second, contrary to the assertion by Lasoda *et al.* that ''it is not clear *a priori* if the LFA method would render useful information on the dynamics of this type of system'' (Ref. 1), our 11-year-old work on the OCS molecule already made it quite clear that applying LFA to strongly coupled molecular systems ($2d$ and $3d$) indeed renders much useful information;[2,3] in addition to quantitative analysis of quasi-periodic motion, resonant segments of irregular trajectories were identified to high accuracy. Moreover, crossing of irrational frequency ratios (cantori) was clearly seen.[3]

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