

STANFORD UNIVERSITY  
DEPARTMENT OF STATISTICS  
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, November 28, 2000  
Sequoia Hall Rm. 200  
(Cookies at 3:45 in 1st Floor Lounge)

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**Bikernel Oscillation Analysis for the Mixture Complexity**

The problem under consideration is to determine the number of components in a mixture, in the case where one does not want to make parametric assumptions on the components. Some results are given as to when such an approach is feasible, and when it is not. From these results a simple but powerful criterion is derived. The problem can then be analyzed by a statistical technique which has recently transcended from computer vision into statistics. I will compare the method with other approaches and illustrate its use with some examples, also addressing the case where parametric models are more appropriate.