

## **BayesianBand: Jam Session System based on Mutual Prediction by User and System**

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One kind of pleasure that jam sessions bring is deciding a melody or an accompaniment while mutually predicting what the other participants are going to play. We propose a jam session system, called BayesianBand, which provides this kind of musical pleasure through sessions with computers. With this system, the chord progression in a session is not fixed in advance but rather is determined in real time by predicting the user's melody. The user, while improvising, is also expected to predict the chord progression generated by the system; accordingly, a cooperative jam session based on the mutual prediction will be achieved. To build this system, we constructed a model for melody prediction and chord inference based on a Bayesian network.