Classification of Octave Illusion Patterns by SVM

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In order to investigate the mechanism of neural processing in the auditory cortex related to octave illusion, we measured the auditory steady-state response (ASSR) in a magnetoencephalogram (MEG). Therefore, we attempted to classify the ASSRs recorded during the octave illusion by perceptual patterns using support vector machine (SVM). The results showed that the accuracy in each trial of cross-validation was greater than 0.5. This result suggests that the characteristics of the perceptual pattern are manifested in the ASSR.