

Paper ID	1570763707
Title	Frequency-specific Flicker Modulates the Cognitive Response to Arithmetic Tasks
Author	Pengcheng Li (Tokyo Institute of Technology, Japan); Hironori Nakatani (Tokai University, Japan); Tohru Yagi (Tokyo Institute of Technology, Japan)
Email	li.p.ac@m.titech.ac.jp

Abstract

The current study is designed to investigate whether the entrained oscillations could affect performance and information processing in short-term working memory and an arithmetic task. According to some previous studies, it is known that the flicker frequencies close to 10.2 Hz increase senior people's memorization of the words that subjects learned before. The current study is neither just studying the effects of entrained oscillation of alpha peak waves, nor focusing a broader range at 0, 6, 11.5, or 18Hz. In the experiment, besides a memory task, subjects also need to do the arithmetic task. Current results indicate that the reaction time of the experimental group is faster than the control group. Entrained oscillations may help people become more sensitive and cognitive.