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修士論文題目	図形のネガ／ポジ表示における 視覚の誘導場とマッハ効果の比較

Induction field in vision means the psychological potential field that affects appearance around a figure. Typically, we measured the field by upper limen of method of limits.

We investigated the effect of negative or positive type images on the field by the method of limits and the measurement of Upper and Lower Limen. As a result, the lower limen distributed alike a distribution of the upper limen that forms the induction field in vision. Closing to the border of the figure and background, the limen was more descendant. These distributions were observed both side of inside and outside of figure. It was suggested that the form of negative or positive type affect the induction field in vision. Especially, it was appeared in the result for the upper limen of outside of the figure in the case of the negative type. We conjecture that it has to be considered with a form of negative type or positive type to construct a model of induction field in vision.

One of models of forms of the induction filed in vision is lateral inhibition model in the visual perception. On the other hand, Mach effect was explained by the lateral inhibition model in the visual perception. We measured the upper and lower limen of the perceived brightness for the Mach effect. As a result, we obtained that the upper and lower limen are distributes are approximately parallel to each other. It seems that the distributions for Mach effect are not correspondent to the distributions of the induction field in vision. We reviewed the procedure of the measurement of the induction field in vision. When we do the process, we present the small spot as a probe in target visual pattern and record the threshold value of brightness of spot. Under this procedure, it seems that it is acceptable that we record the distribution as an induction field in vision, although we perceive brightness distributions for the Mach effect.