

# Probability and Statistics

What we look at in paintings: A comparison between  
experienced and inexperienced art viewers

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How do people look at art? Are there any differences between how experienced and inexperienced art viewers look at a painting? We approach these questions by analyzing and modeling eye movement data from a cognitive art research experiment, where the eye movements of twenty test subjects, ten experienced and ten inexperienced art viewers, were recorded while they were looking at paintings. Eye movements consist of stops of the gaze as well as jumps between the stops. Hence, the observed gaze stop locations can be thought as a spatial point pattern, which can be modeled by a spatio-temporal point process. We introduce some statistical tools to analyze the spatio-temporal eye movement data, and compare the eye movements of experienced and inexperienced art viewers. In addition, we present a stochastic model, which is rather simple but fits reasonably well to the eye movement data.

This is joint work with Anna-Kaisa Ylitalo and Peter Guttorp .