

Colloquium
Michigan State University
Department of Statistics and Probability

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Genetic Architecture of Intelligence

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10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

ABSTRACT

How do genes affect cognitive ability or other human quantitative traits such as height? I begin with a brief review of psychometric measurements of intelligence, introducing the idea of a "general factor" or g score. The main results concern the stability, validity (predictive power), and heritability of adult g. Next, I discuss ongoing Genome Wide Association Studies which investigate the genetic basis of intelligence. Due mainly to the rapidly decreasing cost of sequencing, it is likely that within the next 10 years we will identify genes which account for a significant fraction of total IQ variation - in the case of height we are well along the way towards a similar goal. Finally, I describe some preliminary results on the underlying genetic architecture of height and intelligence.

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