

# Bringing Computational Modeling to Psychiatry

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It can be challenging to understand the complex interactions and relationships that result in the development and maintenance of psychiatric problems; however, computational modeling — the integration of mathematics, computers, and simulations to model complex systems — provides a new tool to help describe clinical dysfunction.

A special series in the May issue of *Clinical Psychological Science*, introduced by journal editor Alan Kazdin and special series guest editor Tiago V. Maia, brings together articles illustrating the diverse range of applications of computational modeling to psychiatry.

[Editor's Introduction to the Special Series: Computational Psychiatry](#)

Alan E. Kazdin

[Introduction to the Series on Computational Psychiatry](#)

Tiago V. Maia

[Model-Based Cognitive Neuroscience Approaches to Computational Psychiatry: Clustering and Classification](#)

Thomas V. Wiecki, Jeffrey Poland, and Michael J. Frank

[Decision-Theoretic Psychiatry](#)

Quentin J. M. Huys, Marc Guitart-Masip, Raymond J. Dolan, and Peter Dayan

[Single-Stimulus Functional MRI Produces a Neural Individual Difference Measure for Autism Spectrum Disorder](#)

James T. Lu, Kenneth T. Kishida, Josepheen De Asis-Cruz, Terry Lohrenz, Diane Treadwell-Deering, Michael Beauchamp, and P. Read Montague

[Bridging Levels of Understanding in Schizophrenia Through Computational Modeling](#)

Alan Anticevic, John D. Murray, and Deanna M. Barch

[The Role of Serotonin in Orbitofrontal Function and Obsessive-Compulsive Disorder](#)

Tiago V. Maia and Maria Cano-Colino