

# A Couple of Historical Comments About the W Function and How Mathematical Modelling Is Producing Weird and Incorrect Results in Science

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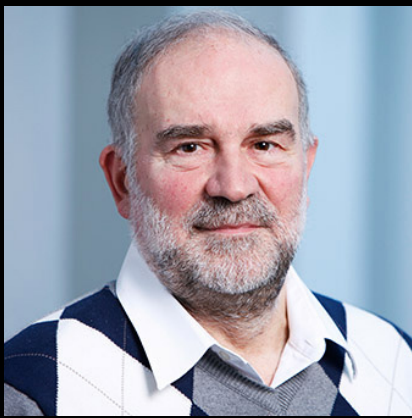
ETH Zürich, Switzerland, Informatik, Institute for Scientific Computation

**March 10, 2017**

**Middlesex College, Room 204**

**2:30 - 3:30PM**

**20 Years of Lambert  $W$   
Lecture Series**

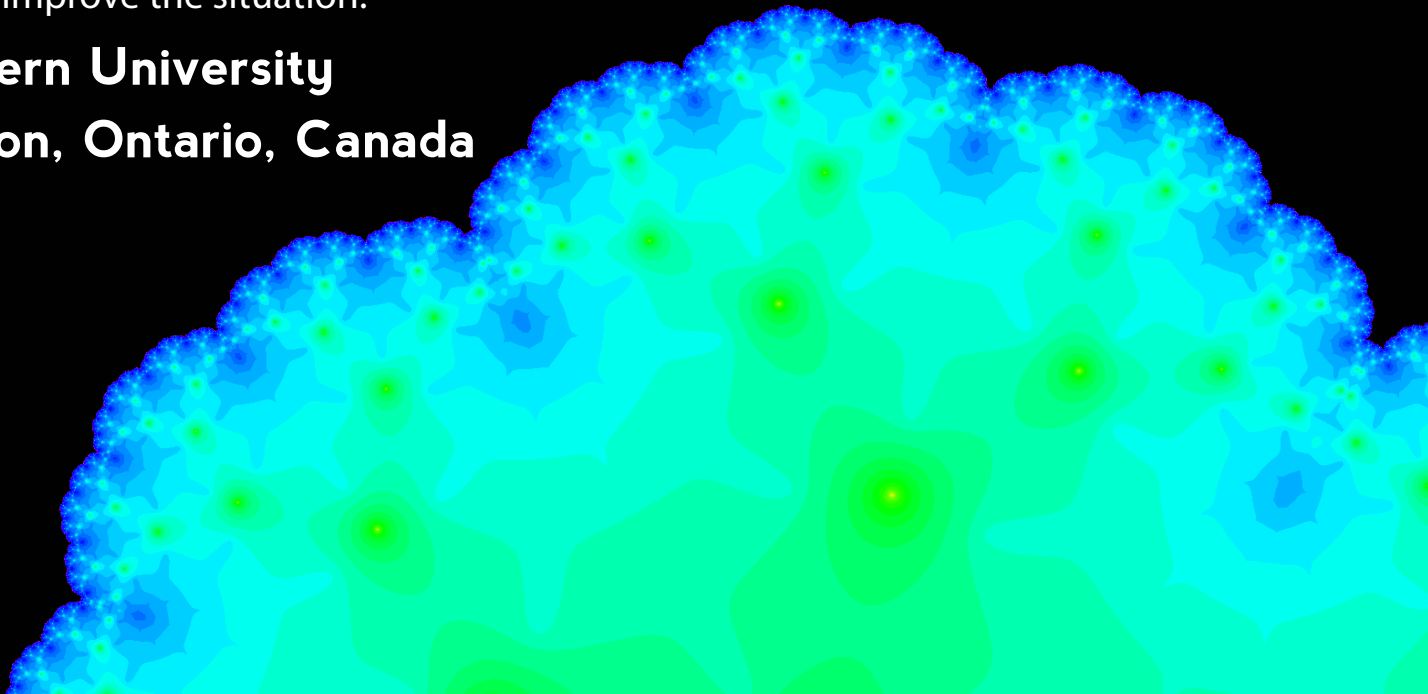


There has been a mounting concern in the sciences, in particular in the medical/biological sciences, that some results are not correct. An important effort, the “Reproducibility project” in experimental psychology tried to reproduce the results from 100 published papers. Even with all the extra steps taken to ensure the same conditions of the original studies only 36.1% of the studies replicated, and if they did replicate their effects were smaller than the initial studies effects. The authors emphasized that the findings reflect a problem that affects all of

science not just psychology, and that there is room to improve reproducibility in psychology. The effects of this study are still being (passionately) debated. We have a conjecture for why this happens and propose a couple additional, (shuffling and resilience) tests to improve the situation.

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