# Isaac Newton Institute 20th Anniversary Lecture
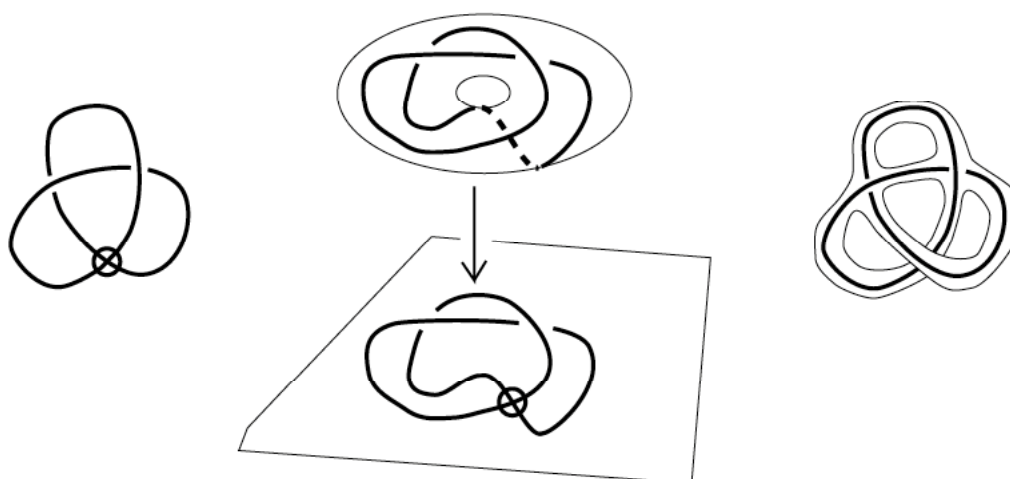
## Virtual Knot Theory

Abstract: Virtual knot theory is an extension of classical knot theory to stabilized embeddings of circles into thickened orientable surfaces. Classical knot theory is the case of genus zero. We have a diagrammatic theory for studying virtual knots and links that is very similar to Reidemeister moves for classical knots. This diagrammatic theory lends itself to the construction of numerous new invariants of virtual knots as well as extensions of known invariants. In virtual knot theory there are infinitely many non-trivial knots with unit Jones polynomial. We will discuss the problem of whether there exist classical knots with unit Jones polynomial in the light of this phenomenon.

## Professor Louis H. Kauffman
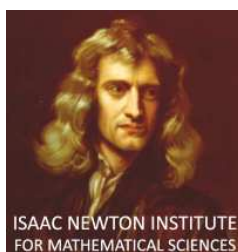### University of Illinois at Chicago

16:00 Wednesday 17 October 2012
University of Warwick



## Programme
MS.01, Zeeman Building

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| 15:30 | **Dr Christie Marr** (Deputy Director, INI) | What is new at the INI? |
| 16:00 | **Louis H Kauffman** (Chicago) | Virtual Knot Theory |
| 17:00 | **Reception** | Mathematics Institute Common Room |

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