



Tony Weidberg

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2-3PM, 11 May (Wed), B2.01 (Science Concourse).

“Reproducibility in Particle Physics and possible applications to other sciences”

I will give a brief introduction to the issues that were discussed at last year’s symposium on ‘reproducibility and reliability in biomedical research’. I will then discuss a few examples of problems with reproducibility of results in particle physics and then explain the general strategy adopted by the Large Hadron Collider experiments in CERN to minimise the chances of making false discovery claims. I will then illustrate how these strategies are applied in practice for the case of the discovery of the Higgs boson. This will involve discussion of the statistical issues but not require any knowledge of particle physics. The remaining part of the session will not be a formal lecture but a discussion. We will go through the elements of the strategy that have been useful in particle physics and participants will then be invited to give their views as to the applicability or otherwise to their research fields. I will try to record the consensus views on these subjects and circulate them to participants afterwards.

For more details about the colloquium: <http://warwick.ac.uk/bridges-phd/scientificreproducibility> .