

The Sorcerer's Apprentice, or the case for Ph.D. candidate's problems of carrying a replication research on Chaos Theory for Monetary Aggregate analysis and failing

Fabio Pisano

Pegaso International H.E.I., Malta,
e-mail: pisano.fabio@hotmail.it

Abstract

What should be done if, after a couple of weeks of intensive work for presenting a paper you realize in a Sunday afternoon that you result are wrong? This is the actual problem that led this presentation, as well as the ways forward I tried to take. Presenting a paper is a useful exercise for young researcher, and a quite simple way to implement it is using the replication methodology: not pretending to create a new idea, but taking the theoretical experiment developed by other people (better experienced) for an identical problem and using it for own dataset. Using this methodology is not necessarily correct (starting conditions may differ, as well as the validity of the techniques adopted) but it could be a good proxy once analysing the same object (Monetary Aggregate) but for a different Country (Malta).

Once obtained the results, I had tested the validity of it running the algorithm for the old original dataset (it is publicly accessible) and the results obtained diverge from the original paper! The dilemma is the following: Should it be maintained the methodology of the old paper (hence studying why the pure replication exercise failed) or should it be understood the validity of the actual results obtained with the new algorithm (hence studying the dataset)?

This presentation is aimed to present the efforts to proper submitting paper without mistakes.

Keywords: Replication, PhD candidate, R, Python, Chaos Theory, algorithm