
TREMPPI: Toolkit for Reverse Engineering of Molecular Pathways through Parameter Identification

Adam Streck*¹ and Heike Siebert¹

¹Freie Universität Berlin – Kaiserswerther Str. 16-18, 14195 Berlin, Germany

Abstract

We present TREMPPI, a visual tool for construction, validation and, analysis of models of molecular regulation and signalling. The main aim of the tool is to assist in reasoning about non-linear systems with complex motives, e.g. feed-back, incoherent feed-forward etc. Our hope is to provide means of an initial design for synthetic gene circuits, in a framework that is similar to digital circuits, while acknowledging the problems stemming from the biological nature of the synthetic systems, like noise, randomness, conflicting influences etc.

Keywords: regulatory networks, boolean networks, tool, parameter identification

*Speaker