Review of: "A connection between Gompertz diffusion model and Vasicek Interest Rate model"

Alexis Akira Toda[1]

1 University of California, San Diego

Potential competing interests: No potential competing interests to declare.

The Vasicek Interest Rate (VIR) model is mathematically the same as the Ornstein-Uhlenbeck (OU) process known in stochastic calculus (see the Wikipedia article https://en.wikipedia.org/wiki/Ornstein%E2%80%93Uhlenbeck_process). As can be shown easily by applying Ito's lemma, as the author does, the exponential of the OU process is the same as the stochastic Gompertz diffusion process (SGDP). Sometimes, same (or equivalent) objects are called differently across different disciplines, which could be confusing. However, the derivations in the article are all textbook material.