

Dynamics of COVID-19: An Exploratory Model

Ali Mashayekhi
Sharif University of Technology
mashayekhi@alum.mit.edu

Andrada Tomoia-Cotisel
The RAND Corporation
andrada@rand.org

Hyunjung Kim
California State University, Chico
hkim18@csuchico.edu

Dan Gordon
New York State Department of Health (retired)
d_e_gordon@alum.mit.edu

Babak Bahaddin
isee systems
bbahaddin@iseesystems.com

Luis Luna-Reyes
University at Albany
lluna-reyes@albany.edu

David Andersen
University at Albany, State University of New York
(retired)
david.andersen@albany.edu

Keywords: SEIR, COVID-19, pandemic dynamics, pandemic policies

Abstract: In March 2020 our team initiated a modeling effort whose purposes were to create semantically rich stories about the pandemic aimed at the public and to create teaching material for students of system dynamics. We have described the scope and evolution of this project more completely in Gordon et al. (2023). The purpose of the present paper is to present the technical details of the models that have supported that work.

For the most current version of the technical model and its discussions, please visit <https://newfadumfarm.org/resources/>