

Compartmental Modeling for the Neophyte: An Application of Berkeley-Madonna

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Compartmental modeling serves as a necessary framework in many fields, especially biomathematics and ecology. In this paper, we present a user-friendly approach to constructing compartmental models and solving the resulting differential equations to simulate real-world applications. The platform used is Berkeley-Madonna, a software package that has an intuitive graphical interface which empowers users, even those with limited mathematical and programming backgrounds, to focus on modeling concepts rather than mathematical or programming intricacies. This makes Berkeley-Madonna an ideal platform for students, educators, and researchers.