

**AN APPROACH TO ESTIMATE THE PARAMETERS OF LUONG  
GROWTH MODEL USING THE GROWTH OF  
ESCHERICHIA COLI**

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**Abstract:** In this paper a few methods of estimation have been introduced to fit the Luong Growth model in bacterial growth. Traditional non-linear optimization methods generally involve large amount of calculation. In this paper six different methods of estimation have been used for estimation of the parameters of the Luong model using growth data of Escherichia Coli. The best fit method is selected following a standard selection criterion.

**Keywords and Phrases:** Mathematical Modeling, Luong model, Parameter estimation.

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**1. Introduction**

Microorganisms are microscopic or sub microscopic organisms with undifferentiated unicells [6] such as bacteria, archaea, and fungus [9]. Microorganisms have