

# Role of Ordinary and Partial Differential Equations as Mathematical Models in Tumor Growth

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## ABSTRACT

In this paper, we demonstrate the importance of Ordinary and Partial Differential Equations as mathematical models in tumor growth. Because the malignant tumor grows at a rapid rate, scientists and mathematicians have used ordinary and partial differential equations to better understand how the malignant tumor grows. Firstly, we will introduce some tumor growth models that deal with Ordinary Differential Equations (ODEs) and discuss the relationship between such equations and cancer cell growth. Secondly, we will introduce some mathematical models using Partial Differential Equations (PDEs) and discuss their role in tumor growth.

**Keywords:** Cancerous cells, ODEs, PDEs, Mathematical Models

