

Scaling limits in Mathematical Oncology

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A problem of Clinical Oncology will be shortly introduced and its modelling based on differential equations and statistical elements will be illustrated. This modelling is the simplest possible, for a first investigation. In order to make it more realistic, two natural mathematical elements are particle systems and Partial Differential Equations. It is here that scaling limit questions arise. As an example, two problems will be described: a first, partially solved one, connecting proliferating particles with the so called Fisher-KPP equations; and a second one, widely open, about the features, potentially of KPZ type, of the proliferating boundary.