

Analysis of a chemotaxis model with indirect production of chemoattractant

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**Abstract**

This talk addresses a chemotaxis model that describes the aggregation behavior of the Mountain Pine Beetle in forest habitat. The *indirect* cue production is a striking feature of this model, and consequently it exhibits a novel type of critical mass phenomenon with regard to the formation of singularities, which drastically differs from the well-known threshold property of the classical Keller-Segel system, in that it refers to blow-up in infinite time rather than in finite time. Moreover, a recent result on this system with generalized logistic source is also presented. This talk is mainly based on a joint work with Michael Winkler (Paderborn).