MATHEMATICAL ANALYSIS OF CYCLE LENGTH-AGE STRUCTURED CELL POPULATION WITH AGGREGATE TRANSITION RULE: WELL-POSEDNESS

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Abstract. In this work, we analyze a mathematical model of a structured cell population. Each cell is distinguished by its cycle length and by its age. The daughter cells are correlated to the whole cell population thanks to the Aggregate Transition Rule. We prove then that this mathematical model is governed by a $C_0$-semigroup and we investigate some of its properties.