

## Asymptotic behaviour of solutions to one dimensional model aggregation

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We are consider the aggregation equation  $u_t = (u K' * u)_x$  for  $x \in \mathbb{R}$  and  $t > 0$  suplementef with a nonnegative initial datum. For certain particular kernels  $K$ , such equations describe a chemotaxis phenomena.

We show that, under some assumptions on  $K$ , the function given by the following formula:

$$u(x, t) := \begin{cases} \frac{1}{At} & \text{for } x \in \left(-\frac{At}{2}, \frac{At}{2}\right), \\ 0 & \text{for } x \notin \left(-\frac{At}{2}, \frac{At}{2}\right). \end{cases} \quad (x \in \mathbb{R}, t > 0)$$

describes the asymptotic behaviour, when  $t \rightarrow \infty$ , of a large class of solutions of this initial value problem.