Nonlocal equations: Order or Disorder phenomena

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The blow–ups of solutions, that usually are treated as *something "very bad"*, can in fact describe some *self–organization* (order) phenomena, "positive"(like healing) or "negative"(like society polarization). Mathematically it is the theory of integro–differential (a kind of nonlocal) equations (*kinetic–type equations*) that is applied to processes in Biology — e.g. swarm formation or DNA denaturation, Medicine — tendon healing process. The relationships with classical PDEs models are discussed.

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