Continuity of attractors and of its characterization

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Abstract. In this lecture we present some of our recent results on continuity of attractors and of its characterization under autonomous or nonautonomous perturbations. We introduce the class of *gradient-like semigroups* which contains the class of *gradient semigroups* (those with a Liapunov function) and prove that a perturbation of a gradient-like semigroup is again a gradient-like semigroup. The notion of gradient-like semigroups can be extended to non-autonomous evolution processes and we prove that a non-autonomous perturbation of a gradient-like semigroup is a gradient-like non-autonomous evolution process.