1107-35-265   **Francois Hamel*** (`francois.hamel@univ-amu.fr`), Institut de Mathematiques de Marseille, Aix Marseille Université, 39 rue Frederic Joliot-Curie, 13453 Marseille, France. *Bistable transition fronts.*

The standard notions of reaction-diffusion fronts can be viewed as examples of generalized transition fronts describing the invasion of a state by another one. These notions involve uniform limits, with respect to the geodesic distance, to a family of hypersurfaces which are parametrized by time. The existence of transition fronts has been proved in various contexts where the standard notions of fronts make no longer sense. Even for homogeneous equations, fronts with various non-planar shapes or with varying speeds are known to exist. In this talk, I will report on some recent existence results and qualitative properties of transition fronts for bistable equations. I will also discuss their mean speed of propagation. (Received January 17, 2015)