**Integral manifolds for partial functional differential equations in admissible spaces on a half-line**

## Abstract

I willpresent the existence of stable and center-stable manifolds for solutions to partial functional differential equations of the form View the MathML source, t⩾0, when its linear part, the family of operators (A(t))t⩾0, generates the evolution family (U(t,s))t⩾s⩾0 having an exponential dichotomy or trichotomy on the half-line and the nonlinear forcing term f   satisfies the φ -Lipschitz condition, i.e., ‖f(t,ut)−f(t,vt)‖⩽φ(t)‖ut−vt‖C where ut,vt∈C:=C([−r,0],X), and φ(t)belongs to some admissible function space on the half-line. Our main methods invoke Lyapunov–Perron methods and the use of admissible function spaces.