

**Global bifurcations of homoclinic solutions for nonautonomous ordinary differential equations****Authors:**

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**Abstract:** We establish an alternative classification of the shape of global bifurcating branches of bounded solutions to Carathéodory ordinary differential equations. Our approach is based on the parity associated to a path of index 0 Fredholm operators and the Evans function as a recent tool in nonautonomous bifurcation theory. Similarly to the classical Rabinowitz alternative, we establish that a bifurcating branch of bounded solutions either returns to a given branch, or it fails to be compact. Under further assumptions on the Carathéodory equation (and the known solution branch) one can even establish that the bifurcating branch is unbounded.

**References:**

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