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Erratum

In "On invariant surfaces and bifurcation of periodic solutions of ordinary differential equations. Chapter II: Bifurcation-mapping method" by Robert J. Sacker

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There were several errors in the Abstract. The publisher apologise for this and reproduces the entire Abstract below.

This article consists of Chapter 2 of the author's 1964 Dissertation bearing the same title and published as Courant Institute report IMM-NYU 333, available in full on the author's personal web site. Chapter 2 consists of the first complete proof of what has come to be known as the Neimark-Sacker bifurcation theorem. It includes the reduction to normal form using weighted monomials which precludes using the Center Manifold theorem which was not known to the author and was published the same year as the dissertation and called "a Reduction Principle" by V. Pliss and later named Center Manifold theorem by A. Kelley (see previous article for citations). After reduction to normal form, the resulting functional equation for the bifurcating invariant curve is solved in detail. Stand-alone lemmas provide solutions of linear functional equations, a-priori estimates and interpolation inequalities between derivatives in the sup norm.

Keywords: Neimark-Sacker bifurcation theorem; normal form; weighted monomials; functional equations

AMS Subject Classification: 37C05