

**Seydel, R.**

**A continuation algorithm with step control.** (English) [Zbl 0544.65055](#)

Numerical methods for bifurcation problems, Proc. Conf., Dortmund/Ger. 1983, ISNM 70, 480-494 (1984).

Summary: [For the entire collection see [Zbl 0535.00021](#).]

The problem of steplength algorithms in continuation methods is considered. The present paper proposes a step control that leads to a routine which is extremely short and easy to handle. A complicated numerical example illustrates the effectiveness of the approach. A FORTRAN-routine is included.

**MSC:**

- [65L10](#) Numerical solution of boundary value problems involving ordinary differential equations
- [65H10](#) Numerical computation of solutions to systems of equations
- [35B15](#) Almost and pseudo-almost periodic solutions to PDEs
- [34-04](#) Software, source code, etc. for problems pertaining to ordinary differential equations

Cited in **6** Documents

**Keywords:**

[step control](#); [steplength algorithms](#); [continuation methods](#); [numerical example](#); [FORTRAN-routine](#)

**Software:**

[PITCON](#)