

# AUTO CONSTANTS

<b>NDIM</b>	Dimension of system
<b>IPS</b>	Definition of problem type IPS=1: stationary solutions,      IPS=2: periodic solutions, IPS=4: boundary value problem, IPS=7: boundary value problem with computation of Floquet multipliers, IPS=9: homoclinic solutions
<b>IRS</b>	Label of starting solution, for first run set IRS=0
<b>ILP</b>	Detection of folds ILP=0: No detection of folds,      ILP=1: detection of folds

<b>NICP</b>	Number of continuation parameters; these must be specified in the array ICP
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<b>NTST</b>	Number of mesh intervals used for discretization
<b>NCOL</b>	Number of Gauss collocation points per mesh interval (recommended: NCOL=4)
<b>IAD</b>	Control of mesh adaption (recommended: IAD=3)
<b>ISP</b>	Detection of branch-points, period-doubling and torus bifurcation (ISP=2 detects everything)
<b>ISW</b>	Branch switching at branch points (ISW=-1 switches to new branch, ISW=2 continues bifurcations)
<b>IPLT</b>	Definition of the principal solution measure (standard: IPLT=0)
<b>NBC</b>	Number of boundary conditions
<b>NINT</b>	Number of integral conditions

<b>NMX</b>	Maximum number of steps along any branch
<b>RL0</b>	Lower bound on the principal continuation parameter
<b>RL1</b>	Upper bound on the principal continuation parameter
<b>A0</b>	Lower bound on the principal solution measure
<b>A1</b>	Upper bound on the principal solution measure

<b>NPR</b>	Number of steps after which fort.8 plotting and restart data is written
<b>MXBF</b>	Maximum number of treated bifurcations (only effective for algebraic problems)
<b>IID</b>	Control of output amount in fort.9 (recommended: IID=2)
<b>ITMX</b>	Maximum number of iterations in the location of special solutions (recommended: ITMX=8)
<b>ITNW</b>	Maximum number of Newton-Chord iterations (recommended: ITNW=5)
<b>NWTN</b>	Number of iterations after which the Jacobian is frozen (recommended: NWTN=3)
<b>JAC</b>	Derivatives of the system JAC=0: no derivatives given by the user, JAC=1: Derivatives with respect to state- and problem parameters given

<b>EPSL</b>	Relative convergence criterion for equation parameters (recommended: EPSL=1.e-7, EPSL=1.e-6)
<b>EPSU</b>	Relative convergence criterion for solution components (recommended: EPSU=1e-7, EPSU=1e-6)
<b>EPSS</b>	Relative arclength convergence criterion for detection of special solutions (recommended: EPSS=1e-5, EPSS=1e-6)

<b>DS</b>	Initial pseudo-arclength stepsize (negative DS reverses direction of computation)
<b>DSMIN</b>	Minimum allowable absolute value of pseudo-arclength stepsize
<b>DSMAX</b>	Maximum allowable absolute value of pseudo-arclength stepsize
<b>IADS</b>	Frequency of adaption of pseudo-arclength stepsize

<b>NTHL</b>	Modified weight accorded to parameters in the definition of stepsize
<b>NTHU</b>	Modified weight accorded to state variables in the definition of stepsize
<b>NUZR</b>	Setting of parameter values at labelled fort.8 plotting and restart data is written

