

Solving Nonlinear Partial Differential Equations With Maple And Mathematica

[DOWNLOAD HERE](#)

1 General Analytical Approach 1.1 Classification of PDEs 1.2 Analytical Solutions 1.3 Transformations of Nonlinear PDEs 1.4 Traveling-Wave Solutions 1.5 Self-Similar Solutions 1.6 Separable Solutions 1.7 Differential constraints 1.8 Applications of the Painleve Test 2 Geometric Approach 2.1 Method of Characteristics 2.2 Generalized Method of Characteristics 2.3 Method of Characteristics and Conservation Laws 2.4 Direction Fields 2.5 Integral Surfaces 2.6 Poincare Sections 3 Algebraic Approach 3.1 One-Parameter Group of Transformations 3.2 Group Analysis for Nonlinear PDEs 3.3 Invariant Solutions 4 Transform Approach 4.1 Inverse Scattering Transform Approach 5 Systems of nonlinear PDEs. Analytical approach 5.1 Overdetermined systems 5.2 Pfaffian equations and overdetermined systems 5.3 Transformations of nonlinear systems 5.4 Traveling wave solutions 5.5 Generalized separation of variables 6 Approximate Analytical Approach 6.1 Asymptotic traveling wave solution 6.2 Asymptotic solution of Cauchy problem 6.3 Asymptotic solution of systems of nonlinear PDEs 7 Qualitative Approach 7.1 Traveling wave solutions 7.2 Asymptotic solutions 8 Numerical Approach 8.1 Numerical and Graphical Solutions 8.2 Finite Difference Methods 9 Analytical-Numerical Approach 9.1 Spectral Collocation Methods 9.2 Finite Element Methods 9.3 Boundary Element Methods Supplement A. Foundations of Maple Basic Concepts Maple Language Supplement B. Foundations of Mathematica Basic Concepts Mathematica Language References General Index Maple Index Mathematica Index EAN/ISBN : 9783709105177 Publisher(s): Springer, Berlin, Springer, Wien Discussed keywords: Maple, Mathematica, Nichtlineare Analysis, Partielle Differenzialgleichungen Format: ePub/PDF Author(s): Shingareva, Inna K.

[DOWNLOAD HERE](#)

Similar manuals:

[Detail Of A Maple Leaf In Autumn Colours](#)

[Silhouette Of Single Sycamore Maple At Sunset](#)

[Full Moon Over Sycamore Maple Trees And Fields Covered With Hoarfrost](#)

[Moon And Silhouettes Of 3 Sycamore Maple Trees At Dusk](#)

[Maple Leafs In Autumn Colors](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Maple Tree Forest At The Karwendel Mountains Tyrol Austria](#)

[Little Boy With Maple Seed On His Nose](#)

[Branch With Leaves Of Maple Acer Pseudoplatanus In The Forest In Autumn Rieslochfaelle
Bayerischer Wald Lower Bavaria Germany](#)

[Trees Spruce Picea Abies Maple Acer Pseudoplatanus With Yellow Leaves Of Autumn Bavarian
Alps Upper Bavaria Germany](#)

[Tree Maple Acer Pseudoplatanus With Yellow Leaves Of Autumn Bavarian Alps Upper Bavaria
Germany](#)

[Fall Colored Leaves Of A Maple Tree](#)

[Autumncolors In The Eng, Austria, Maple Tree, Acer Pseudoplatanus](#)

[Autumncolors In The Eng, Austria, Maple Tree, Acer Pseudoplatanus](#)

[Autumncolors In The Eng, Austria, Maple Tree, Acer Pseudoplatanus](#)

[Autumncolors In The Eng, Austria, Maple Tree, Acer Pseudoplatanus](#)

[Fall Cloured Maple Leaves, Michigan, USA](#)

[Red Maple Leaves In A Pothole, Michigan, USA](#)

[Fall Coloured Maple Trees In The Wasatch Range, Utah, USA](#)

[Fall Coloured Red Maple Leave On Mosses, West Virginia, USA](#)

[Fall Coloured Maple Leave On Mosses, West Virginia, USA](#)

[Fall Coloured Maple Leaves On Mosses, West Virginia, USA](#)

[Fall Coloured Maple In The Adirondack Mountains, New York State, USA](#)

[Fall Coloured Maple Leaves In Vermont, New England, Vermont, USA](#)

[Fall Coloured Maple Trees In The Green Mountains, Vermont, USA](#)

[Fall Coloured Maple Trees In The Green Mountains, Vermont, USA](#)

[Fall Coloured Maple Trees In The Green Mountains, Vermont, USA](#)

[Fence Under Fall Coloured Maple Trees In Bannington, Vermont, USA](#)

[Maple Leaves On A Tree Trunk, Great Smoky Mountains National Park, North Carolina, USA](#)

[Fall Coloured Maple, North Carolina, USA](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)

[Maple Tree South Devon England Grossbritannien](#)