

Symbolic-Numeric Computation
D. Wang and L. Zhi, Eds
Trends in Mathematics, 335-347
© 2007 Birkhäuser Verlag Basel/Switzerland

**Symbolic Computation Sequences
and Numerical Analytic Geometry
Applied to Multibody D**

#^D) G@ · GD I ZW

• • (

XX3

& L' >GZ. ° lfilfi27R2^ (E/ ~ lfil" 2ø

$$F_5 \left[-I_9 J^1 \right]$$

#^D) G@ · GD I ZW@E #2N2E, 2S (E/ † ZD 2R

X< & L' >GZ. ° lfilfi27R2^ (E/ ~ lfil" 2@

& 2 >([2 ZS2/ W2 Maple 1(,B(=2 LargeExpressions \>@> @)(S2/ GE
WGS 9FW/2[2G 2/ GR 1 2R/R)(WGE,(CZQ WGES @;Z@ D 2>(E@S *HX-L RGD
W21(1 2R *HX+ \ 2>([2 W2 GCG \ @=/ 29E WGE GR (>@R R>^ (E/ W2D (@ @2
GR>@R R>@(CR2 R2SEV WGESL

Definition [Hierarchy]. >@R R>^ @ (E GR/2R/ @WS₀, S

#^D) G@ ' GD I ZW@E #2NZE, 2S (E/ † ZD 2R@ (C E(CV@ ~ ZGD 2R^ X<H

(E/ \ @W W2, GESV@EVS

! 5 I₁ S@₁ - I₂ S@₂ 5 `T

JY K

X<Y & L' >GZ. ° lfilfi27R2^ (E/ ~ lfil" 2@

```
> ics := array( [0,1,0,1/2] );
> dvars := [ 1JtK, 1JtK, 2JtK, 1JtK#
> dsol := dsolve(numeric, number=4, procedure =f, start =0,
  initial = ics,
```


#^

X<<

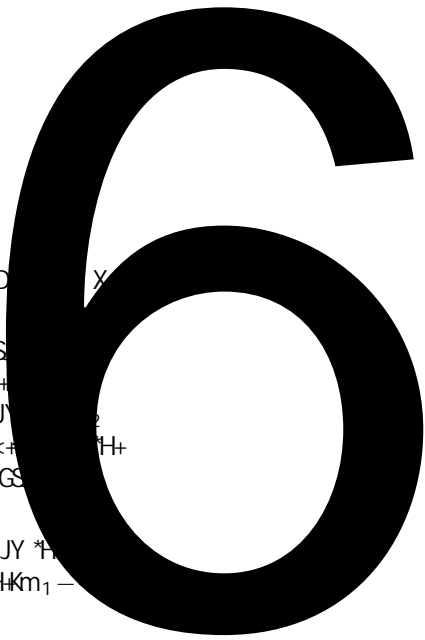
& L' >GZ. ° lfiLfi27R2^ (E/ ~ lfiL" 2Ø

#^D) G@

X<V

& L' >GZ. ° lfilfi27R2^ (E/ ~ lfil" 2@

[13] R.M. Corless, D.J. Jeffrey, M.B. Monagan, Pratibha. Two Perturbation Calculation in Fluid Mechanics Using Large-E



#^D) G@ ' GDI ZWGE #2VZ2E, 2S (E/ I ZD 2R@ (C E(CV@ ~ ZGD

W^V+5 J-I_1 S@JY *HKY *Y^2, GSJY *HMY *XKW *HMI_2 S@JY *XKY *<^2, GS
MY *XKW *H+, GSJY *HKW *Hg, GSJY *XKM, GSJY *HKW *H_1Y *Y^2 S@JY *H
-YW *X+, GSJY *HMY *XK_1g, GSJY *HKm_1 -<W *X+, GSJY *HMY *XK_1g, GSJ
-<W *X+, GSJY *HMY *XK_1g, GSJY *HKm_3 -YW *X+, GSJY *HMY *XK_1_2Y *<+ *H+

W^U+5 J-I_2g, GSJY *XKW *Hm_2 -YI_2g, GSJY *XKW *Hm_3MI_1_2Y *Y^2 S@JY *H
MY *XKW *Hm_2MI_1_2Y *Y^2 S@JY *HMY *XKW *Hm_3 -YI_2^2m_2_1g, GSJY *HKm_1 -
m_2^2_1g, GSJY *HK { -Y *c , g, GSJY *HK *XK-I *H, GSJg S@JY *EEJ

Y *H *Y+3 *HY t) 6 *H+ J *K
, G