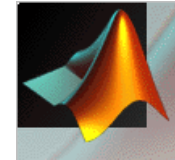


# Bemerkung 4.2: Verfahren von Dormand / Prince

Explizites Runge-Kutta-Verfahren mit  $s = 6$



Matlab

ode45.m

|                |                      |                       |                      |                    |                       |                 |
|----------------|----------------------|-----------------------|----------------------|--------------------|-----------------------|-----------------|
| 0              |                      |                       |                      |                    |                       |                 |
| $\frac{1}{5}$  | $\frac{1}{5}$        |                       |                      |                    |                       |                 |
| $\frac{3}{10}$ | $\frac{3}{40}$       | $\frac{9}{40}$        |                      |                    |                       |                 |
| $\frac{4}{5}$  | $\frac{44}{45}$      | $-\frac{56}{15}$      | $\frac{32}{9}$       |                    |                       |                 |
| $\frac{8}{9}$  | $\frac{19372}{6561}$ | $-\frac{25360}{2187}$ | $\frac{64448}{6561}$ | $-\frac{212}{729}$ |                       |                 |
| 1              | $\frac{9017}{3168}$  | $-\frac{355}{33}$     | $\frac{46732}{5247}$ | $\frac{49}{176}$   | $-\frac{5103}{18656}$ |                 |
| 1              | $\frac{35}{384}$     | 0                     | $\frac{500}{1113}$   | $\frac{125}{192}$  | $-\frac{2187}{6784}$  | $\frac{11}{84}$ |

Free Software (C, FORTRAN, ... )

<http://www.unige.ch/math/folks/haire/software.html>

