Metodi di Adams-Bashforth

$u_{n+1} = u_n + hf_n$ (Eulero Esplicito)

$u_{n+1} = u_n + \dfrac{h}{2}[3f_n - f_{n-1}]$

$u_{n+1} = u_n + \dfrac{h}{12}[23f_n - 16f_{n-1} + 5f_{n-2}]$

$u_{n+1} = u_n + \dfrac{h}{24}[55f_n - 59f_{n-1} + 37f_{n-2} - 9f_{n-3}]$

$u_{n+1} = u_n + \dfrac{h}{720}[1901f_n - 2774f_{n-1} + 2616f_{n-2} - 1274f_{n-3} + 251f_{n-4}]$

Metodi di Adams-Moulton

$u_{n+1} = u_n + hf_{n+1}$ (Eulero Implicito)

$u_{n+1} = u_n + \dfrac{h}{2}[f_{n+1} + f_n]$ (Trapezi)

$u_{n+1} = u_n + \dfrac{h}{12}[5f_{n+1} + 8f_n - f_{n-1}]$

$u_{n+1} = u_n + \dfrac{h}{24}[9f_{n+1} + 19f_n - 5f_{n-1} + f_{n-2}]$

$u_{n+1} = u_n + \dfrac{h}{720}[251f_{n+1} + 646f_n - 264f_{n-1} + 106f_{n-2} - 19f_{n-3}]$

$u_{n+1} = u_n + \dfrac{h}{1440}[475f_{n+1} + 1427f_n - 798f_{n-1} + 482f_{n-2} - 173f_{n-3} + 27f_{n-4}]$

Metodi alle differenze all'indietro

$u_{n+1} = \dfrac{1}{3}[4u_n - u_{n-1}] + \dfrac{2}{3}hf_{n+1}$

$u_{n+1} = \dfrac{1}{11}[18u_n - 9u_{n-1} + 2u_{n-2}] + \dfrac{6}{11}hf_{n+1}$

$u_{n+1} = \dfrac{1}{25}[48u_n - 36u_{n-1} + 16u_{n-2} - 3u_{n-3}] + \dfrac{12}{25}hf_{n+1}$

$u_{n+1} = \dfrac{1}{137}[300u_n - 300u_{n-1} + 200u_{n-2} - 75u_{n-3} + 12u_{n-4}] + \dfrac{60}{137}hf_{n+1}$

$u_{n+1} = \dfrac{1}{147}[360u_n - 450u_{n-1} + 400u_{n-2} - 225u_{n-3} + 72u_{n-4} - 10u_{n-5}] + \dfrac{60}{147}hf_{n+1}$

Metodi basati su formule di quadratura

$u_{n+1} = u_{n-1} + 2hf_n$ (Leap-Frog)