

Conference 5

Milne's Method

Time Stepping Techniques for an IVP

1. Milne's Method

Use the quadratic interpolant to $y'(t) = f(t, y(t))$ at t_n, t_{n-1}, t_{n-2} to obtain the formula (for $n \geq 3$)

$$y_{n+1} = y_{n-3} + \frac{4h}{3} (2y'_n - y'_{n-1} + 2y'_{n-2}) + \mathcal{O}(h^5) .$$

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