

$$v > 0, \quad v\Delta t < \Delta x, \quad \xi = \frac{x - x_{i-1/2}}{\Delta x}.$$

$$\xi = -\frac{v\Delta t}{\Delta x} \qquad \xi = 0 \quad \xi = 1 - \frac{v\Delta t}{\Delta x} \qquad \xi = 1 \qquad \xi = 2$$

$$x_{i-3/2} \quad x_{i-1/2} - v\Delta t \quad x_{i-1/2} \quad x_{i+1/2} - v\Delta t \quad x_{i+1/2} \quad x_{i+3/2}$$

