Recursive Decomposition

- Simple: $u = P \cdot u + m$
- $u_i = \frac{1}{2} u_s + \frac{1}{2} u_d + m_i$

continue with u_s and u_d

$$u_s = \frac{1}{2} u_{ss} + \frac{1}{2} u_{ds} + m_s$$

$$u_d = \frac{1}{2} u_{sd} + \frac{1}{2} u_{dd} + m_d$$

- Example:

$$u_1 = m_1$$

$$u_2 = m_2$$

$$u_3 = m_3$$

$$u_4 = \frac{1}{2} u_1 + \frac{1}{2} u_2 + m_4 = \frac{1}{2} m_1 + \frac{1}{2} m_2 + m_4$$

$$u_5 = \frac{1}{2} u_3 + \frac{1}{2} u_2 + m_5 = \frac{1}{2} m_3 + \frac{1}{2} m_2 + m_5$$

$$\Rightarrow u = L \cdot m$$