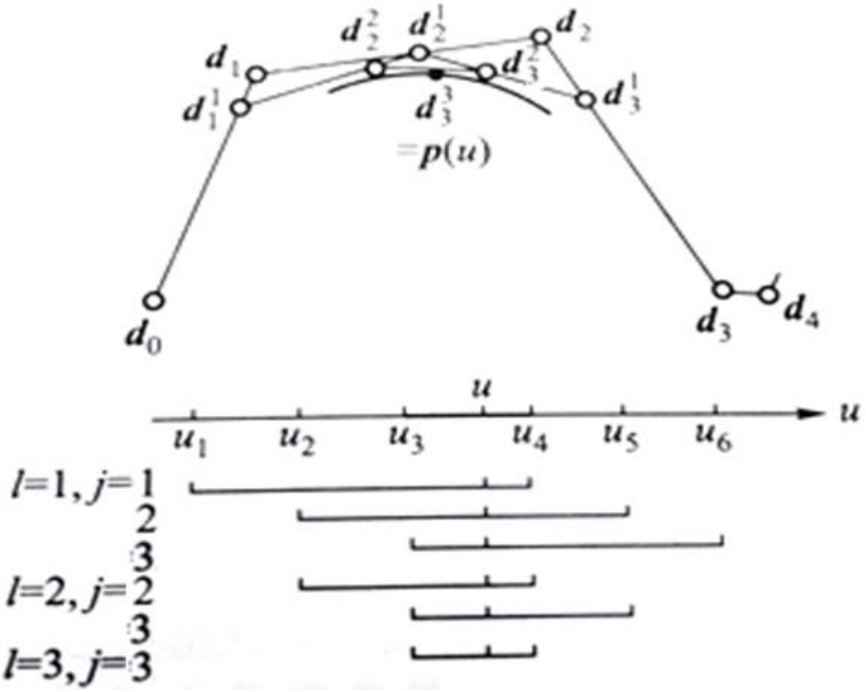
de Boor 算法示例：求三次 B 样条曲线上点 $p(u), u \in (u_3, u_4)$.

解：不妨假设 $u_i = i, u = 3.5$。利用 DeBoor 算法，求出各层顶点。



一、$l = 1$

1） $j = 1: d_0^1 = \dfrac{u_4 - u}{u_4 - u_1} d_0 + \dfrac{u - u_1}{u_4 - u_1} d_1 = \dfrac{4 - 3.5}{3} d_0 + \dfrac{3.5 - 1}{3} d_1 = \dfrac{1}{6} d_0 + \dfrac{5}{6} d_1$

2） $j = 2: d_1^1 = \dfrac{u_5 - u}{u_5 - u_2} d_1 + \dfrac{u - u_2}{u_5 - u_2} d_2 = \dfrac{5 - 3.5}{3} d_1 + \dfrac{3.5 - 2}{3} d_2 = \dfrac{1}{2} d_1 + \dfrac{1}{2} d_2$

2） $j = 3: d_2^1 = \dfrac{u_6 - u}{u_6 - u_3} d_2 + \dfrac{u - u_3}{u_6 - u_3} d_3 = \dfrac{6 - 3.5}{3} d_2 + \dfrac{3.5 - 3}{3} d_3 = \dfrac{5}{6} d_2 + \dfrac{1}{6} d_3$

二、$l = 2$

1） $j = 2: d_2^2 = \dfrac{u_4 - u}{u_4 - u_2} d_1^1 + \dfrac{u - u_2}{u_4 - u_2} d_2^1 = \dfrac{4 - 3.5}{2} d_1^1 + \dfrac{3.5 - 2}{2} d_2^1 = \dfrac{1}{4} d_1^1 + \dfrac{3}{4} d_2^1$

2） $j = 3: d_3^2 = \dfrac{u_5 - u}{u_5 - u_3} d_2^1 + \dfrac{u - u_3}{u_5 - u_3} d_3^1 = \dfrac{5 - 3.5}{2} d_2^1 + \dfrac{3.5 - 3}{2} d_3^1 = \dfrac{3}{4} d_2^1 + \dfrac{1}{4} d_3^1$

二、$l = 3$

1） $j = 3: d_3^3 = \dfrac{u_4 - u}{u_4 - u_3} d_2^2 + \dfrac{u - u_3}{u_4 - u_3} d_3^2 = \dfrac{4 - 3.5}{1} d_2^2 + \dfrac{3.5 - 3}{1} d_3^2 = \dfrac{1}{2} d_2^2 + \dfrac{1}{2} d_3^2$