

~~XXXXXXXXXX~~ LARISA  
GRUPA 141

## Temă 6

$$(\mathbb{R}^3, (\mathbb{R}^3, q_0), p_0)$$

a) EC. PLAN  $\pi$  DETERMINAT DE  $O(0,0,0), A(1,0,2), B(1,1,1)$

b)  $\Delta_1: \frac{x_1-1}{2} = \frac{x_2+2}{-3} = \frac{x_3-5}{4} = t$

$$\Delta_2: \begin{cases} x_1 = 3t+7 \\ x_2 = -2t+2 \\ x_3 = -2t+1 \end{cases}$$

EC. PLAN  $\pi$  CARE TRECE PRIN  $\Delta_1$  SI  $\pi \parallel \Delta_2$ .

a)  $\pi: \begin{vmatrix} x & y & z & 1 \\ 0 & 0 & 0 & 1 \\ 1 & 0 & 2 & 1 \\ 1 & 1 & 1 & 1 \end{vmatrix} = 0$

$$1 \cdot (-1)^{2+4} \cdot \begin{vmatrix} x & y & z \\ 1 & 0 & 2 \\ 1 & 1 & 1 \end{vmatrix} = z + 2y - 2x - y = -2x + y + z = 0 \Rightarrow$$

$$\Rightarrow \pi: -2x + y + z = 0$$

b)  $\Delta_1: \begin{cases} x_1 = 2t+1 \\ x_2 = -3t-2 \\ x_3 = 4t+5 \end{cases} \Rightarrow M(1, -2, 5) \in \Delta_1$   
 $\mu_1(2, -3, 4)$

$$\Delta_2: \frac{x_1-7}{3} = \frac{x_2-2}{2} = \frac{x_3-1}{-2} = t' \Rightarrow \mu_2(3, 2, -2)$$

$$\pi: \begin{vmatrix} x_1-1 & 2 & 3 \\ x_2+2 & -3 & 2 \\ x_3-5 & 4 & -2 \end{vmatrix} = (x_1-1) \begin{vmatrix} -3 & 2 \\ 4 & -2 \end{vmatrix} - (x_2+2) \begin{vmatrix} 2 & 3 \\ 4 & -2 \end{vmatrix} + (x_3-5) \begin{vmatrix} 2 & 3 \\ -3 & 2 \end{vmatrix} =$$

$$= -2x_1 + 2 + 16x_2 + 32 + 13x_3 - 65 = 0$$

$$\pi: -2x_1 + 16x_2 + 13x_3 - 31 = 0$$