## Laborator 6

## **MLE**

Aflati  $\mathbf{MLE}$  ai urmatorilor parametri pentru urmatoarele densitati de probabilitate si sampleuri de dimensiune n.

1. 
$$f_X(x;\theta) = \theta \cdot x^{\theta-1}, 0 < x < 1, \theta > 0.$$

2. 
$$f_X(x;\theta) = (\theta+1)x^{-\theta-2}, 1 < x, \theta > 0.$$

3. 
$$f_X(x;\theta) = \theta^2 \cdot x \cdot e^{-\theta \cdot x}, 0 < x, \theta > 0.$$

4. 
$$f_X(x;\theta) = 2 \cdot \theta^2 \cdot x^{-3}, \theta \le x, \theta > 0.$$

5. 
$$f_X(x;\theta) = \frac{\theta}{2} \cdot e^{-\theta \cdot |x|}, -\infty < x < \infty, \theta > 0.$$

6. 
$$f_X(x; \theta_1, \theta_2) = \frac{1}{\theta_2 - \theta_1}, \theta_1 \le x \le \theta_2.$$

7. 
$$f_X(x; \theta_1, \theta_2) = \theta_1 \cdot \theta_2^{\theta_1} \cdot x^{-\theta_1 - 1}, \theta_2 \le x, \theta_1, \theta_2 > 0.$$