

Računalniška orodja v fiziki

Povprečja

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Naloga 1:

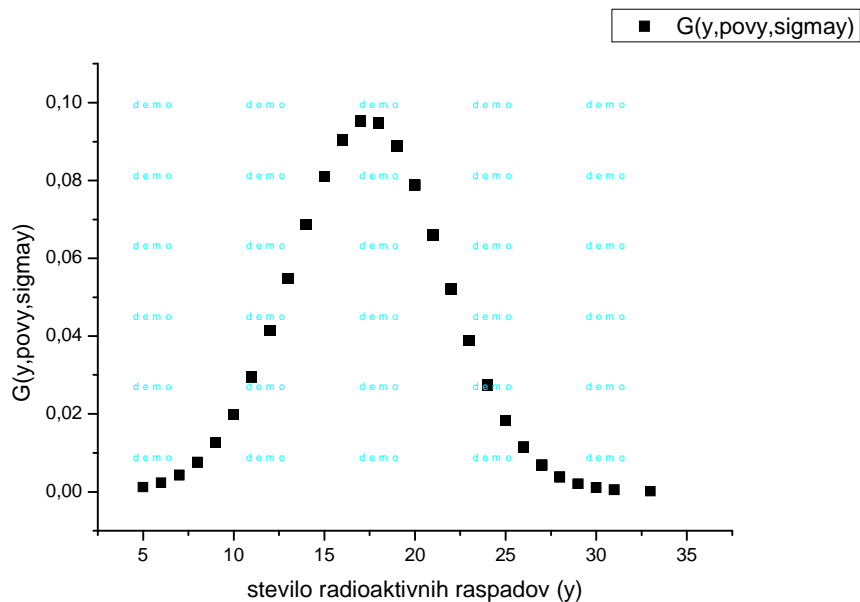
	Cel interval	1/3 intervala (podatki 1-333)	2/3 intervala (podatki 334-666)	3/3 intervala (podatki 667-999)
Povy (μ s)	311.084985	302.764264	331.600000	298.890691
sigmay	314.841370	323.665388	327.621305	290.932058

Naloga 2:

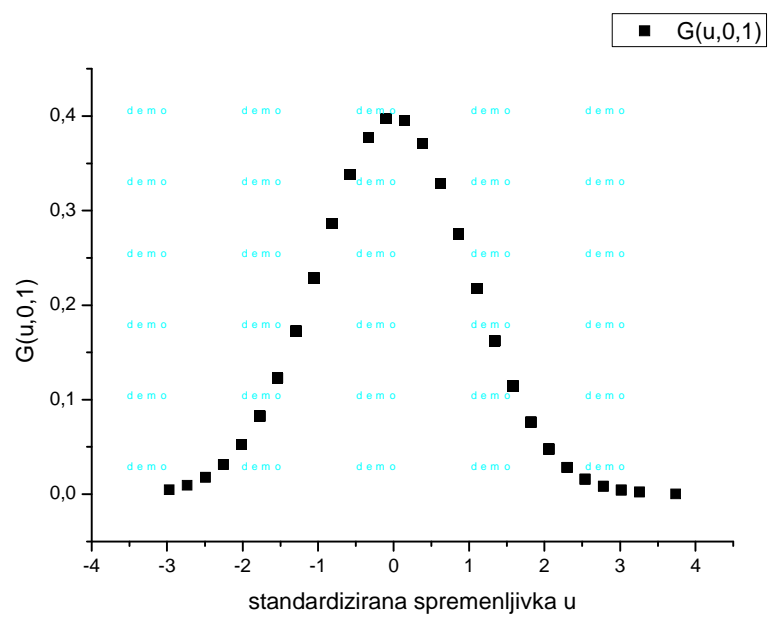
	Agxx (število radioaktivnih raspadov)	Ozadje
povy	17.403000	0.00000002
sigmay	4.172121	0.000070
muy	266.845782	64.152775

Agxx:

G(y,povy,sigmay)

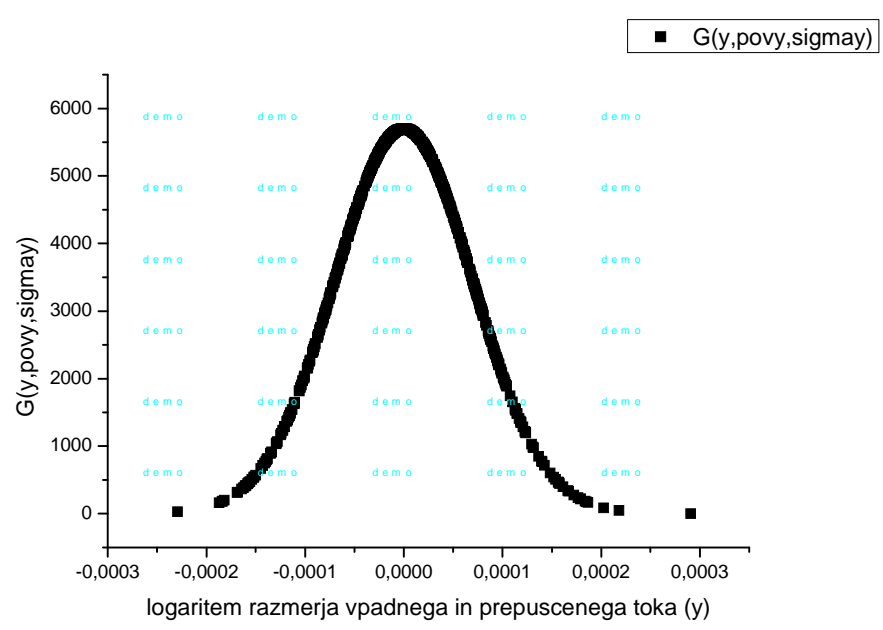


$G(u,0,1)$

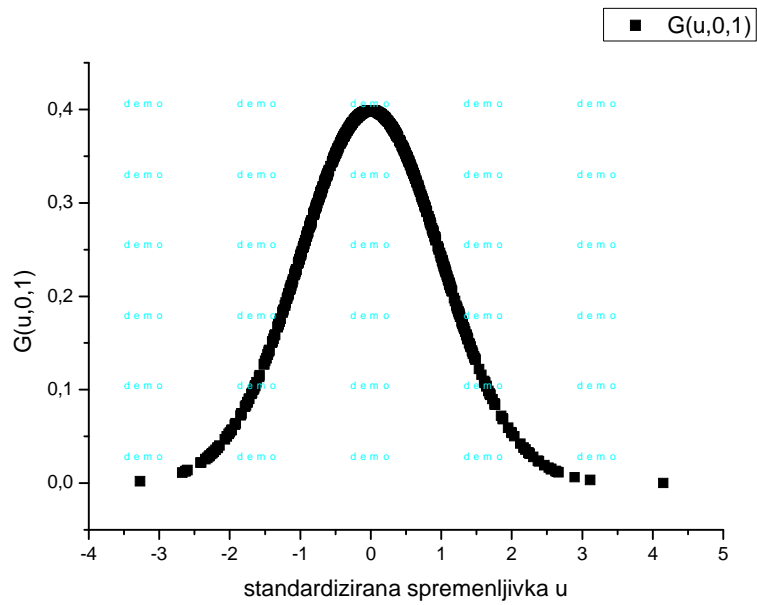


Ozadje:

$G(y,povy,sigmay)$



$G(u,0,1)$



Naloga 3:

Povy= -0.000002

Sigmay= 0.706724

Analitična določitev sigmay:

$$\sin^2 + \cos^2 = 1$$

$$\text{pov}(\sin^2) = \text{pov}(\cos^2) = \frac{1}{2}$$

$$\text{sigma} = \sqrt{0.5} = 0.707107$$

$$\text{povy} = \int_0^{6.28} \sin^2 x \, dx$$

$$\text{sigma} = \sqrt{\frac{\text{povy}}{6.28}} = 0.707286$$

$$\int_0^{6.28} \sin^2 x \, dx = 8.07 \cdot 10^{-6}$$