

Re: Roots of $AX^2 + BX + C$

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- *From:* Gerry Myerson <gerry@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 27 Oct 2008 03:34:55 GMT
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In article <87vdvff16y.fsf@xxxxxxxxxxxxxxxxxxxxxxxx>, Phil Carmody <thefatphil_demunged@xxxxxxxxxxxxx> wrote:

Gerry Myerson <gerry@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx> writes:

In article <87abcrizth.fsf@xxxxxxxxxxxxxxxxxxxxxxxx>, Phil Carmody <thefatphil_demunged@xxxxxxxxxxxxx> wrote:

nils_von_nostrand@xxxxxxxxxx writes:

Recently a student and I talked about the probability of the roots a quadratic equation ($AX^2 + B \cdot X + C$) to be complex. As we all know, the roots will be complex if $(B^2 - 4 \cdot A \cdot C)$ is less than zero.

Can someone please explain why three (uniformly distributed) randomly chosen numbers, A, B, C

Uniformly distributed, eh? On an infinite space? How does that work?

There is no problem with a random variable uniformly distributed on, say, the real numbers.

What would the (closed form for the) PDF be?

The probability of hitting any finite interval would have to be 0, and of hitting any semi-infinite interval would have to be a constant (or two, one for $\rightarrow -\infty$, one for $\rightarrow +\infty$).

Surely you need finite measure?

Re: Roots of $AX^2 + BX + C$

Yes, I think I was thinking of the finite measure case.

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Gerry Myerson (gerry@xxxxxxxxxxxxxxxx) (i -> u for email)

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