Subject: Re: Floating underflow?
Posted by Jeremy Bailin on Sun, 18 May 2008 12:46:58 GMT

The floating underflow is almost certainly coming from points far out on the distribution... normal distributions drop below machine-representable numbers (even doubles) remarkably fast. In this case, it's probably innocuous enough, but if they're bothering you (or slowing down your code) you could always test to make sure the argument to the Gaussian isn't too large, and if it is then assign zero instead of doing the calculation.

Incidentally, you're not looping over i and j are you? :-)=

On May 18, 3:10 am, Magic.Z...@gmail.com wrote:
> can some one who can tell me how to deal with Floating underflow?
>
> my code is
> Pro_00(i,j)=(1.d32/(C*sqrt(MS_01[1,Oimage(i,j)]*1.d)))*EXP(-
> ((Oimage(i,j)-
> MS_01[0,Oimage(i,j)])^2)*1.d32/2.d32*MS_01[1,Oimage(i,j)])
> all of the input value is double
> it is a normal distribution, but the result report it has a Floating
> underflow, can some one give me some ideas?
> ps:
> it is a markov random fields

Subject: Re: Floating underflow?
Posted by David Fanning on Sun, 18 May 2008 23:02:36 GMT

Magic.Zhou@gmail.com writes:

> can some one who can tell me how to deal with Floating underflow?

This article might help.

  http://www.dfanning.com/math_tips/underflow.html

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Floating underflow?
Posted by Magic.Zhou on Mon, 26 May 2008 10:42:51 GMT
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On May 19, 9:02 am, David Fanning <n...@dfanning.com> wrote:
> Magic.Z...@gmail.com writes:
>> can some one who can tell me how to deal with Floating underflow?
>
> This article might help.
>
>   http://www.dfanning.com/math_tips/underflow.html
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

thanks a lot!