Subject: Re: Capture division by zero
Posted by koldo on Thu, 29 Oct 2020 13:19:32 GMT
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mirek wrote on Wed, 28 October 2020 14:04I am also pretty interested what will you do when you get exception in eigen. I am not that advanced in math, but I am pretty sure that e.g. matrix inversion can produce a lot of divide by zero for degenerate matrix and I am also pretty sure that eigen follows NaN model like every other mature library (if for nothing else, then for performance reasons).

Are you going to compute determinant before each call to inversion?

Mirek
I am well aware of operations that could be bad conditioned . I use a lot matrix inversion.
In fact STEM4U includes some tools to handle infinite precision numbers (well, but as expected, very inefficiently)
If you ask me if I prefer to search for NaNs after every matrix algebra operation, or catching an exception, I will choose the second.
And remember that U++ is not for people who are content to following STL or BOOST, but is for people who wants more performance and simplicity of use. There are other libraries more compliant but, unfortunately for them, they are worse than U++. And you are the biggest culprit of it .