Subject: Re: plot of implicit function
Posted by Andrea[1] on Fri, 19 Nov 2010 10:34:04 GMT
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On Nov 19, 11:08 am, Wox <s...@nomail.com> wrote:
> On Fri, 19 Nov 2010 01:24:28 -0800 (PST), Andrea
>
> <negri.an...@gmail.com> wrote:
>> Hello, I have an analitical 3D streamfunction, and I want to plot it.
>> I looked herehttp://www.dfanning.com/tips/particle_3d.htmland it's
>> exactly what I want,
>
> Isn't a streamfunction like a vectorfield? Shouldn't you be using
> something like this (but then in 3D):http://michaelgalloy.com/2008/03/19/overview-of-flow-visualization-in...
>
>> but I have an a implicit definition of
>> coordinates:
>> f(R,phi,z)=t
>> g(R,phi,z)=t
>> h(R,phi,z)=t
>
> I don't understand. So you have coordinates (R,phi,z) which can be
> easily transformed to (x,y,z). f,g and h aren't defining the
> vectorfield are they? So what are they and how is your vectorfield
> based upon them? Maybe I'm missing something obvious here...

Sorry for my bad explanation. I have an analitical vector field (ie
the mathematical formula) and I have integrated it in order to obtain
the analitical formula of streamlines (in 3D, in this case) ie now I
have the trajectory of a point in the vector field in function of a
parameter t (the time, if you want) in cylindric coordinates.
The problem is that: the trajectory is not defined as explicit
function of time only like this

R=f(t)
phi=g(t)
z=h(t)

but are defined as implicit function of time, and the function
involved are a non-invertible function. So, I need the idl equivalent
of implicitplot3d maple command.