
Subject: Re: Nonlinear Diffusion Image Filtering Package

Posted by [rogass](#) on Tue, 15 Feb 2011 13:06:05 GMT

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On 15 Feb., 12:28, Ding <gardener_2...@hotmail.com> wrote:

> Dear All,
>
> I developed a code based on the nonlinear diffusion Image filtering
> (see Joachim Weickert 1996).
> available at <http://www2.warwick.ac.uk/fac/sci/physics/research/cfsa/people/yuan/s...>
>
> It performs edge-enhancing, coherence-enhancing image filtering, which
> enhance the features directionally as designed by the diffusion
> tensor, while smooth the rest of the image.
>
> You are welcome to download and test the codes, I appreciate that you
> send me comments and bugs.
>
> Cheers
>
> Ding Yuan
> CFSA, Physics
> Warwick University

Hi,

I'd like to test it, but maybe you forgot to include all routines in
you zip-file such as exist.pro. You can easily check this by using
RESOLVE_ALL.

Cheers

CR

Subject: Re: Nonlinear Diffusion Image Filtering Package

Posted by [pgrigis](#) on Tue, 15 Feb 2011 15:24:46 GMT

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On Feb 15, 8:06 am, chris <rog...@googlemail.com> wrote:

> On 15 Feb., 12:28, Ding <gardener_2...@hotmail.com> wrote:
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> Cheers
>
> CR

Looks like it's from solarsoft

```
function exist,var
```

```
return,n_elements(var) ne 0
```

```
end
```

Ciao,
Paolo

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [Ding](#) on Tue, 15 Feb 2011 16:07:27 GMT
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On Feb 15, 3:24 pm, Paolo <pgri...@gmail.com> wrote:
> On Feb 15, 8:06 am, chris <rog...@googlemail.com> wrote:

```

>
>
>
>> On 15 Feb., 12:28, Ding <gardener_2...@hotmail.com> wrote:
>
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>> CR
>
> Looks like it's from solarsoft
>
> function exist,var
>
> return,n_elements(var) ne 0
>
> end
>
> Ciao,
> Paolo

```

It is true, I found it a good replacement of keyword_set() which some times failed. I work on solar physics and used to include the procedures in solarsoft

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [David Fanning](#) on Tue, 15 Feb 2011 16:11:46 GMT
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Ding writes:

> It is true, I found it a good replacement of keyword_set() which some
> times failed

I doubt it failed. It's often used for the wrong purpose
by people who judge its function by reading its name
instead of its documentation. :-)

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: Nonlinear Diffusion Image Filtering Package
Posted by [Ding](#) on Tue, 15 Feb 2011 17:05:59 GMT
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On Feb 15, 4:11 pm, David Fanning <n...@dfanning.com> wrote:

> Ding writes:
>> It is true, I found it a good replacement of keyword_set() which some
>> times failed

>
> I doubt it failed. It's often used for the wrong purpose
> by people who judge its function by reading its name
> instead of its documentation. :-)

>
> 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.")

I'd rather use `n_elements()` ne 0 instead of `keyword_set()`.

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [David Fanning](#) on Tue, 15 Feb 2011 17:12:50 GMT
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Ding writes:

> I'd rather use `n_elements()` ne 0 instead of `keyword_set()`.

I would suggest that is what you **should** be using instead of `Keyword_Set`, so I'm glad to hear it. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [cgguido](#) on Tue, 15 Feb 2011 18:02:00 GMT
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Hi Ding,

I am having a problems with your code. It seems `gsderiv` checks of `sigma` to be "in range", but incorrectly... Also, `roll.pro` uses `sng` instead of `signof`.

Thanks!
Gianguido

```
IDL> imgf=nonlineardif(img,sigma, 0,  
dt=0.1,ndt=20,mode='eed',scheme=scheme)  
% Compiled module: NONLINEARDIF.  
% Compiled module: EXIST.  
% Variable is undefined: IN_RANGE.  
% Execution halted at: GSDERIV      65 /Users/cgguido/idl/  
cgguido/downloaded/nonlineardif/nonlineardif.pro
```

% NONLINEARDIF 505 /Users/cgguido/idl/
cgguido/downloaded/nonlineardif/nonlineardif.pro
% \$MAIN\$

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [Michael Galloy](#) on Tue, 15 Feb 2011 18:35:25 GMT
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On 2/15/11 10:05 AM, Ding wrote:

> I'd rather use `n_elements()` ne 0 instead of `keyword_set()`.

KEYWORD_SET and N_ELEMENTS() ne 0 are telling you two *different* things about your variable. Which one you use depends on what you need to know about it.

Mike

--

www.michaelgalloy.com
Research Mathematician
Tech-X Corporation

Subject: Re: Nonlinear Diffusion Image Filtering Package
Posted by [Ding](#) on Tue, 15 Feb 2011 18:59:01 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Feb 15, 6:02 pm, Gianguido Cianci <gianguido.cia...@gmail.com> wrote:

> Hi Ding,

>

> I am having a problems with your code. It seems `gsderiv` checks of
> `sigma` to be "in range", but incorrectly... Also, `roll.pro` uses `sng`
> instead of `signof`.

>

> Thanks!

> Gianguido

>

> IDL> `imgf=nonlineardif(img,sigma, 0,`
> `dt=0.1,ndt=20,mode='eed',scheme=scheme)`
> % Compiled module: NONLINEARDIF.
> % Compiled module: EXIST.
> % Variable is undefined: IN_RANGE.
> % Execution halted at: GSDERIV 65 /Users/cgguido/idl/
> `cgguido/downloaded/nonlineardif/nonlineardif.pro`
> % NONLINEARDIF 505 /Users/cgguido/idl/
> `cgguido/downloaded/nonlineardif/nonlineardif.pro`

> % \$MAIN\$

Gianguido,

Thanks for reminding, you are correct, sgn.pro is a solarsoft alternative of signof.pro, in_range.pro is also from solar soft. I will add the scripts from solarsoft, as notes.

Cheers

Ding
