Subject: Determine Data relationship
Posted by daevu on Tue, 16 May 2006 17:35:22 GMT
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Folks,

How would you approach this problem

I have a dependent variable x (in this case the probability of
occurrence of a plant disease) which can be explained by a bunch of
independent variables x(i) (in this case, weather data,eg
Tair,Precip,Wind,soilmoisture, etc).I have a large dataset of plant
disease probability and the corresponding weather data.
How would I build a model of this relationship, like y=f(x(1-i)),
linear, cubic, polynomial?
- neuronal networks would be an approach but there is no tool for it in
IDL (as far as I know)
- wavelets: could this used for it? if yes, any hints?

Thanks four your comments in advance...

D.

Subject: Re: Determine Data relationship
Posted by daevu on Fri, 19 May 2006 05:23:04 GMT
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wem schrieb:
> daevu wrote:
>> Folks,
>>
>> How would you approach this problem
>>
>> I have a dependent variable x (in this case the probability of
>> occurrence of a plant disease) which can be explained by a bunch of
>> independent variables y(i) (in this case, weather data,eg
>> Tair,Precip,Wind,soilmoisture, etc).I have a large dataset of plant
>> disease probability and the corresponding weather data.
>> How would I build a model of this relationship, like y=f(x(1-i)),
>> linear, cubic, polynomial?
>> - neuronal networks would be an approach but there is no tool for it
>> in IDL (as far as I know)
>> - wavelets: could this method used for it? if yes, any hints?
>>
>> Thanks for your comments in advance...
>>
>> D.

>
> I think this depends on what you are trying to accomplish with the model.
> Are you trying to predict new, future results, or trying to visualize
> the data, or maybe guessing results from data from the past where no new
> information can be gathered about, or ...?
>
Well I would like to predict, new future results, where I will predict
the variable x.

Subject: Re: Determine Data relationship
Posted by wem on Fri, 19 May 2006 05:41:05 GMT
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daevu wrote:
> Well I would like to predict, new future results, where I will predict
> the variable x.

Then I suggest using neural networks.

And if IDL doesn't give you the right functionality to handle that,
maybe you should consider using another language? ;-) (right tool for
the right job, remember?)

Subject: Re: Determine Data relationship
Posted by daevu on Fri, 19 May 2006 21:33:29 GMT
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wem schrieb:
> daevu wrote:
>> Well I would like to predict, new future results, where I will predict
>> the variable x.
>
> Then I suggest using neural networks.
>
> And if IDL doesn't give you the right functionality to handle that,
> maybe you should consider using another language? ;-) (right tool for
> the right job, remember?)

Yep, http://www.easynn.com/ free and fast, BUT neural networks ain't
physics...

Subject: Re: Determine Data relationship
Posted by Predictor on Mon, 22 May 2006 14:54:40 GMT

I do not know IDL, but judging from this document:

http://www.ittvis.com/idl/pdfs/IDL63_FuncSum.pdf

...I'd be surprised if one couldn't cobble together a logistic
regression. If IDL isn't providing what you need, though, I'd suggest
considering another tool.

-Will Dwinnell
http://will.dwinnell.com

daevu wrote:
> How would you approach this problem
>
> I have a dependent variable x (in this case the probability of
> occurrence of a plant disease) which can be explained by a bunch of
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