CLIMATE WIKIENCE

Easier, Faster, Clearer

wikience.org

Data: problems

Data are free and open, but...

• Have large volumes

MERRA – 24 TB CFSRR – 100 TB

 Complex storage formats

> HDF4, HDF5, NetCDF, GRIB

 Disconnected storage and visualization tools

Data: problems

Data are free and open, but...

 Thousands of files with unreadable names

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Data: problems

Data are free and open, but...

 Files must be ordered via a web page to download further with **FTP/HTTP**

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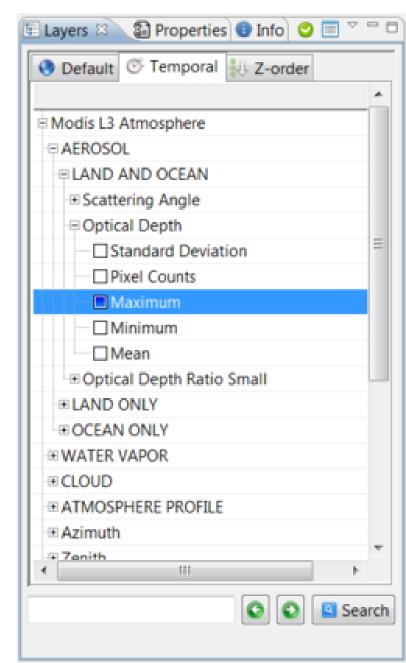
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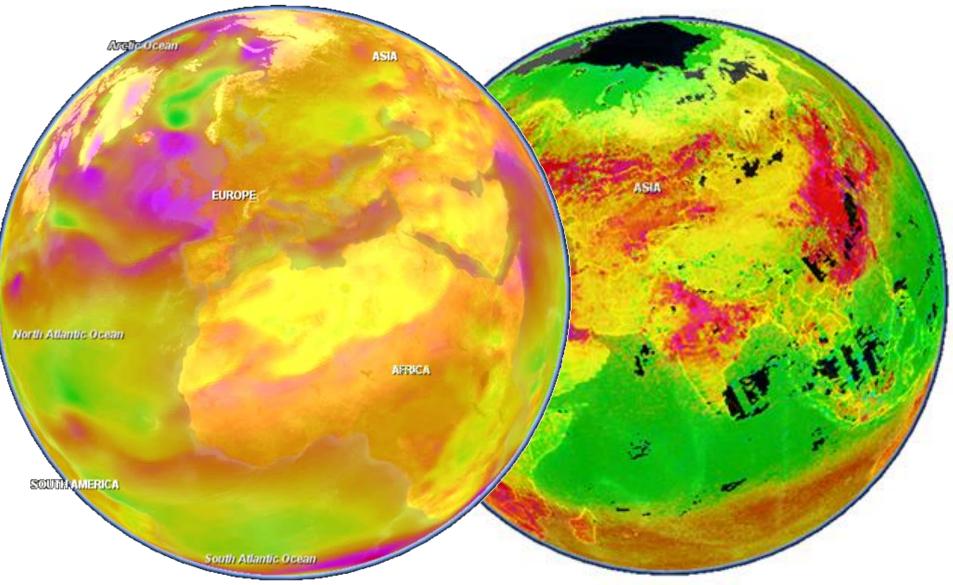
Climate Wikience

Provides easier, faster and clearer way to perform exploratory data analysis

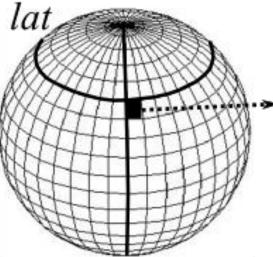
 Over 700 variables (meteorology, air pollution, vegetation) are accessed the same way regardless of files quantity, names, volumes



A mouse click to view data in 3D



The clearest visualization ever



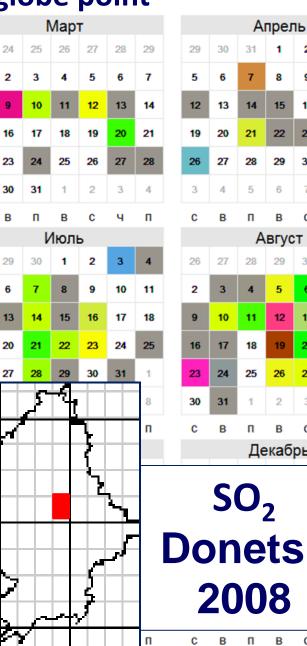
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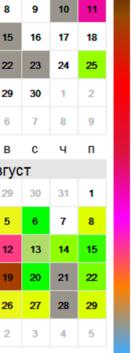
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Climate Wikience provides time series for each globe point **MARNARL**

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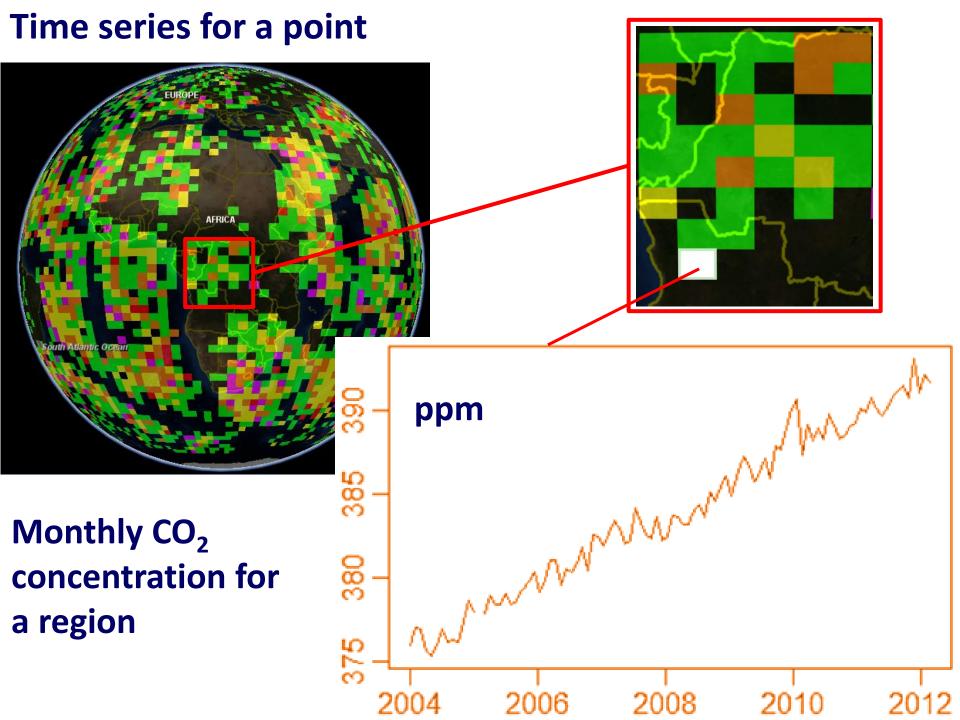
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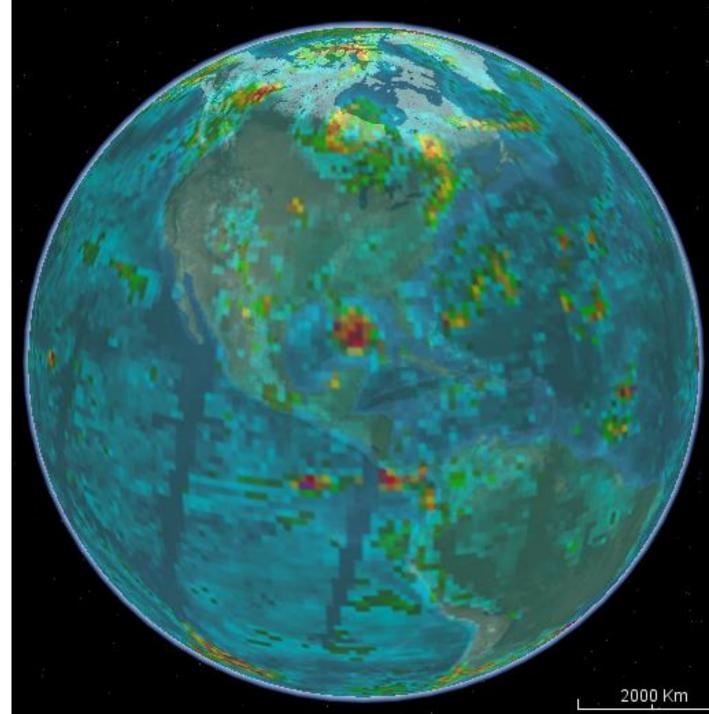


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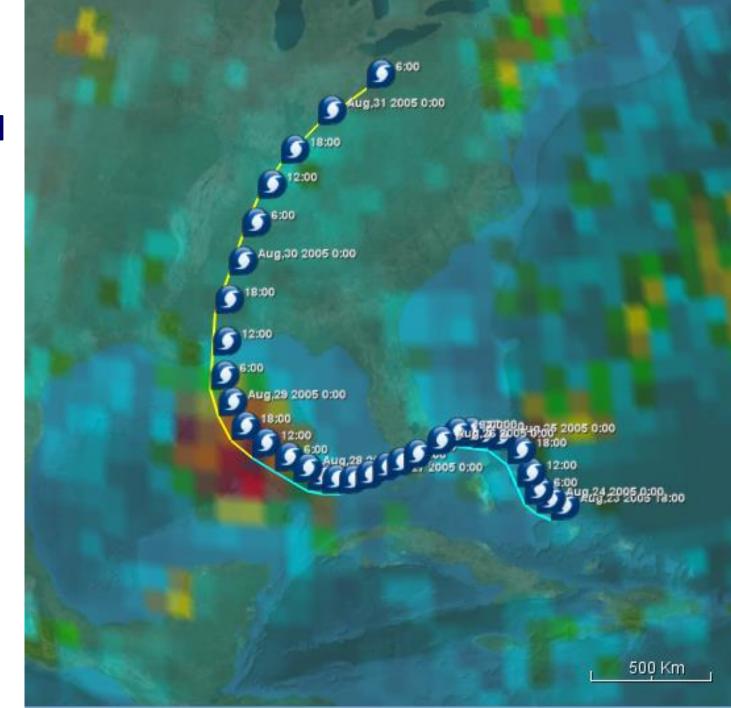


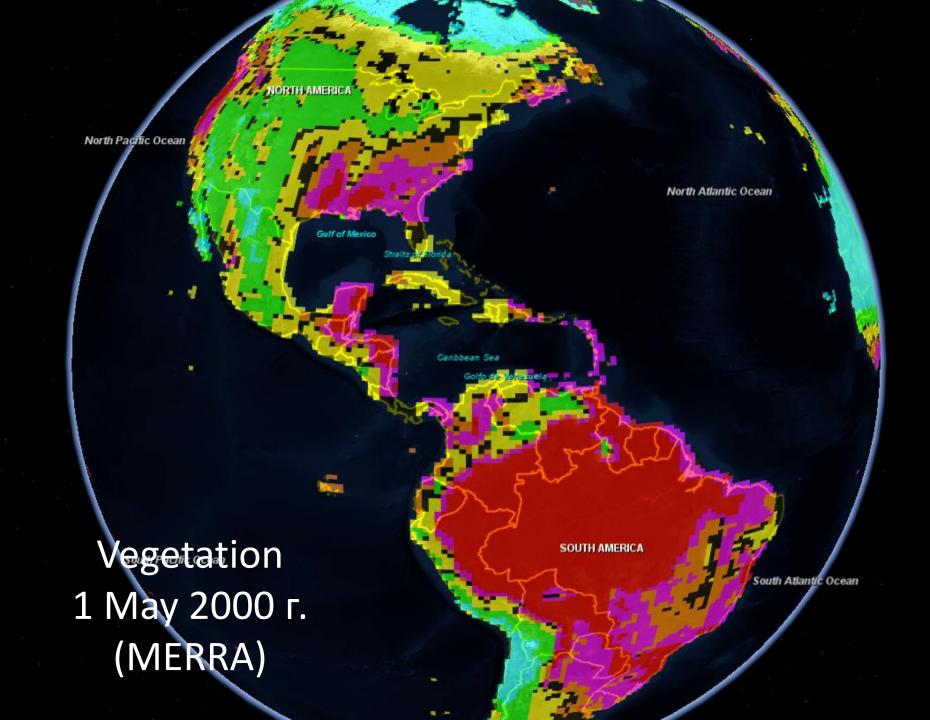
Terra MODIS: optical cloud thickness



Hurricane Katrina path (IBTrACS) and optical cloud thickness (MODIS)

August 28, 2005 Peak strength





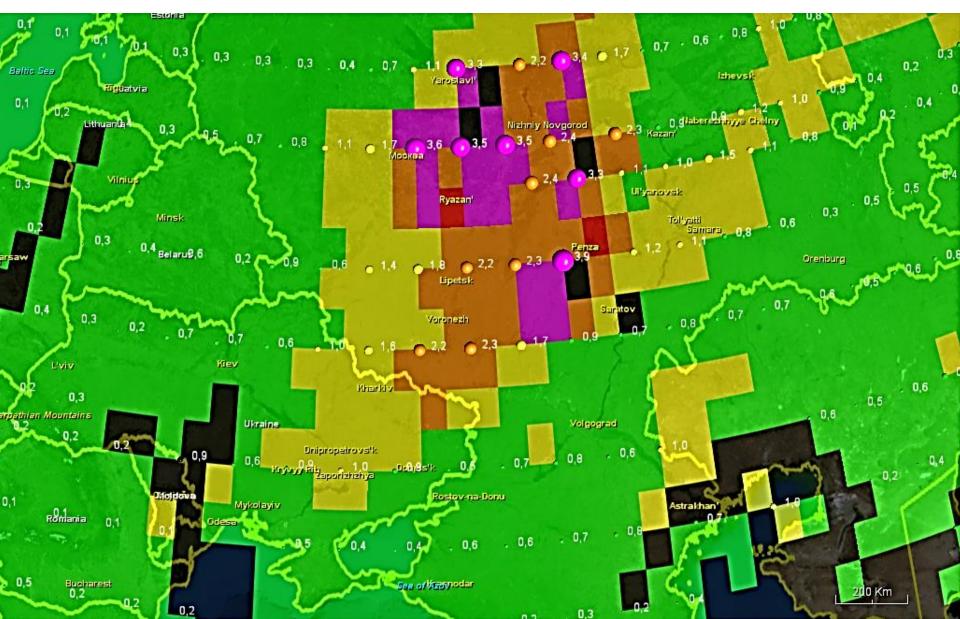
Wildfire in Russia, August 2010



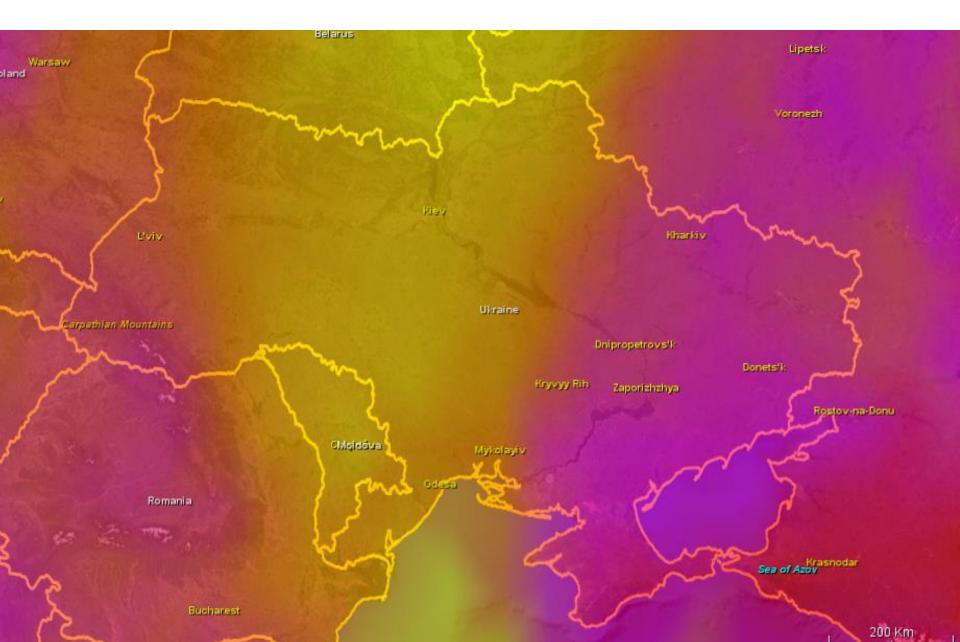
Moscow, Red Square

Wildfire in Russia

Optical Aerosol Thickness, August 2010

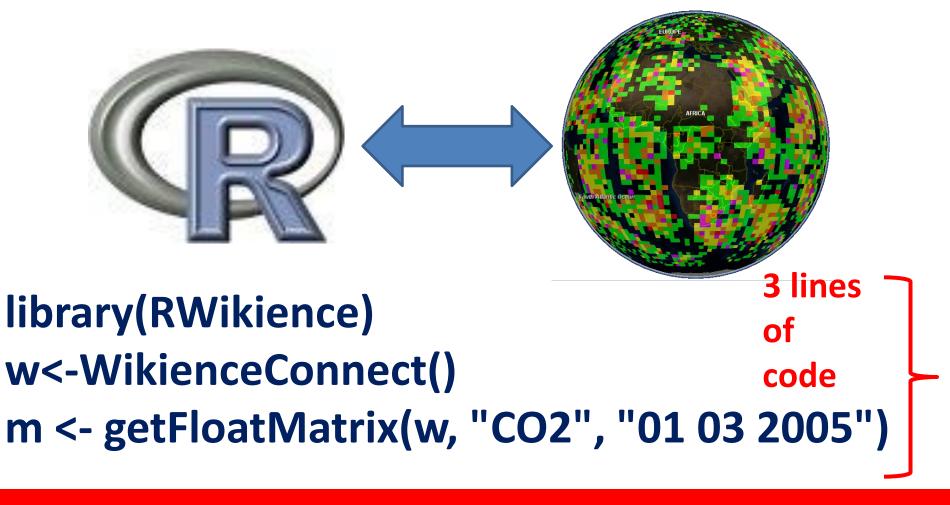


Ozone, 1 May 2006



RWikience

• Bridging Climate Wikience and R



All data are avaiable from R

Rome, Italy

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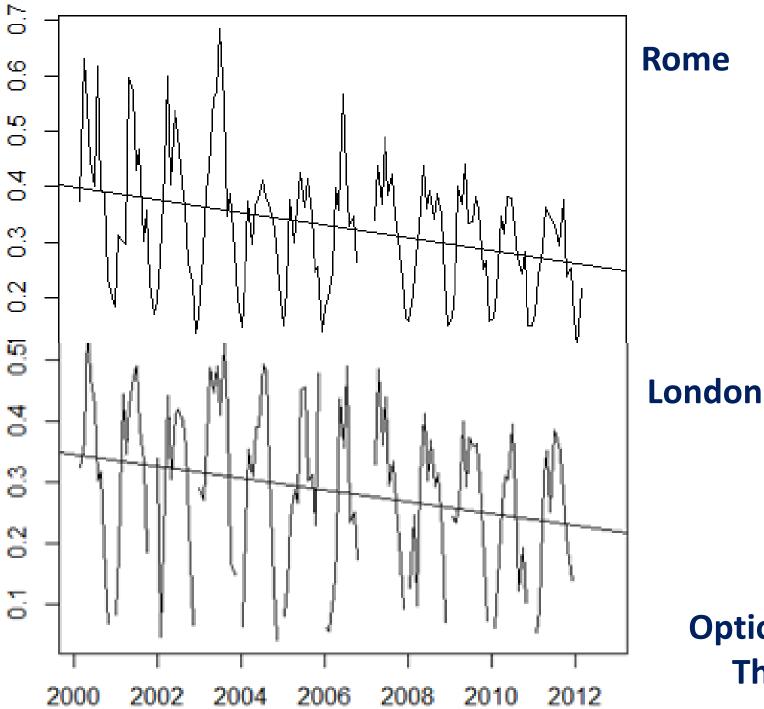
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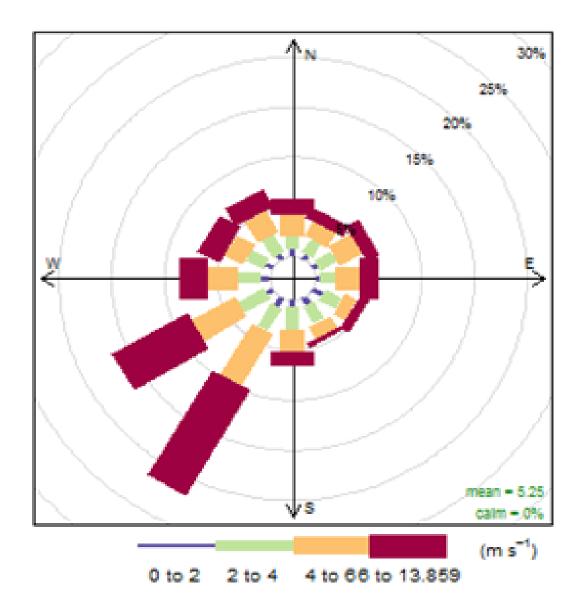
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Optical Aerosol Thickness

Wind rose for a point on the globe



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