

## Data visualisation: Choosing the right tools

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In this short video I will talk about how to choose the right tools for data visualisation, and the keyword here is scriptable. There is not one perfect language and not one perfect library or tool, and you will have to choose what best fits you and your group. In this course I show examples obtained using python R and JavaScript, and I would recommend you to start with one of these. And I emphasise, also here, no manual post processing. This will bite you when you need to regenerate 50 figures one day before the submission deadline, or regenerate a set of figures after the person who created them left the group. Use software that can be scripted.

And choose tools which are free. Not only in terms of money, but also in terms of reusability by others. Even if the university pays for the license, what happens to your scripts and to your programs and to your visualisation when you leave the university? How can you and other groups build on your work? Python R and JavaScript are free. You will find lots of excellent learning material on Python and R or JavaScript. They have very active and welcoming communities and I recommend everybody to learn at least the basics in one of these languages. You don't have to become a super expert, but it will pay off to learn a little bit for any academic discipline.

Here on this slide there is an incomplete list of great visualisation tools: Matplotlib, Seaborn, Altair, Plotly – many other Python libraries, ggplot2, R Shiny, d3js. In the lecture slides I link to these and recommend you to browse the example so that you can find the one that fits you best. There is a bit of a learning curve, but you will be happy you made the choice when updating figures shortly before a deadline.