

## Poster/Handput A4. 20% of final mark

- Use the code from anyone in the group (reference correctly) to perform analysis of a climate index. Compare your index with publically created downloadable indices if appropriate. Then create a poster that shows your results and covers the contents of the video to come. Incorporate ideas of the storyline you want to explain and put emphasis on good visualization material. – Explain the climate index, its impacts and if known its origin – the phases, occurrences and dependences.
- Find a layout that is appropriate (e.g. double folded leaflet) as handout to interested audience. (understandable for high school graduates / first year students)
- Textsize should not be below 11pt. you may put references / overview map other art / ideas on the back side.
- See the handout as possibility to test your storyline for the video. You will receive feedback on the poster from the whole group to improve your story. Feel free to test more experimental approaches to reach your audience and explain the observed climate variability.
- Upload the poster to an online co-working space (e.g. google docs) where others can comment on your poster. Marks will be given half for the completeness of the poster and half for participating and giving constructive improvement suggestions to the online posters / storylines.
- Hand in the link to poster/handout by Wednesday – July 5th.

- Cover the following topics, if applicable, and not limited to :
- **What data is this climate index based on?**
- **What is the best mathematical method to analyse this data? Other possibilities?**
- **How much variability in the area/location is due to this index/variability?**
- **What are the regional / far away impacts of this index?**
- **Is climate change impacting / masking / being masked by this index?**

Please find below the assigned teleconnections / indices. The website:

- <https://www.cpc.ncep.noaa.gov/data/teledoc/telecontents.shtml>

contains all climate indices, data-links you need to use:

- V. Volkova - **North Atlantic Oscillation** (NAO)
- Q Cunningham - **East Atlantic** (EA)
- T. Knoop - **East Atlantic/Western Russia**
- A. Andrae - **Scandinavia** (SCAND)
- F. Kirch - **Polar/Eurasia**
- C. Posern - **West Pacific** (WP)
- L Aroucha - **East Pacific-North Pacific** (EP-NP)
- M Pohl - **Pacific/North American** (PNA)
- M. Schulzie - **Tropical/Northern Hemisphere** (TNH)
- C. Ziska - **Pacific Transition** (PT)
- T Sieker – ENSO (not on that website, but many links on the NOAA CPC website)

# Methods of timeseries analysis

The next slide contains all the links to the code for the various time series analysis. Please use this code accordingly in your analysis and reference the code used.

You may train to create a 'fork' in github to adapt the code used to your needs.

Name	Method	Link
V. Volkova	LSF / OI	<a href="https://github.com/vvvalukha/climAPC">https://github.com/vvvalukha/climAPC</a>
Q Cunningham	Wavelett	<a href="https://github.com/quinn305/ClimAPC-Wavelets/tree/main">https://github.com/quinn305/ClimAPC-Wavelets/tree/main</a>
T. Knoop	(S)ARIMA	<a href="https://github.com/tcknoop/climAPC_ARIMA.git">https://github.com/tcknoop/climAPC_ARIMA.git</a>
A. Andrae	ARIMA	<a href="https://github.com/AlexAndrae7/ARIMA_model.git">https://github.com/AlexAndrae7/ARIMA_model.git</a>
F. Kirch	Wavelett	<a href="https://github.com/felixkirch/apc-region">https://github.com/felixkirch/apc-region</a>
C. Posern	EOF	<a href="https://github.com/ConnyPosern/EOF">https://github.com/ConnyPosern/EOF</a>
L Aroucha	LSF / OI	<a href="https://github.com/leoaroucha/climAPCREGION-01a">https://github.com/leoaroucha/climAPCREGION-01a</a>
M Pohl	LSF /OI	<a href="https://github.com/math1sebp/climAPCREGION-least-square-and-interpolation">https://github.com/math1sebp/climAPCREGION-least-square-and-interpolation</a>
M. Schulzie	EOF	<a href="https://github.com/mschulzie/climAPCREGION">https://github.com/mschulzie/climAPCREGION</a>
C. Ziska	FFT	Offline file – see DL folder.
T Sieker	FFT	<a href="https://github.com/TimSieker/FourierAnalysis">https://github.com/TimSieker/FourierAnalysis</a>