***PyHeAT:* A Python script to plot helium thermochronology data trends in age, elevation, eU, and ESR [i.e. (U-Th)/He in Apatite or Zircon]**

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This Python script has been set up to plot helium thermochronology [i.e. (U-Th)/He in Apatite or Zircon] data to visualize and thus detect trends in age (Ma), elevation (m), eU (ppm), and ESR (μm). The Matlab counterpart by Lingxiao Gong at al. can also be accessed on Zenodo.

1. Requirements

This code requires **`Python3`** and the commonly used third-party libraries **`matplotlib`**, **`numpy`** and **`pandas`** to be installed.

2. Input

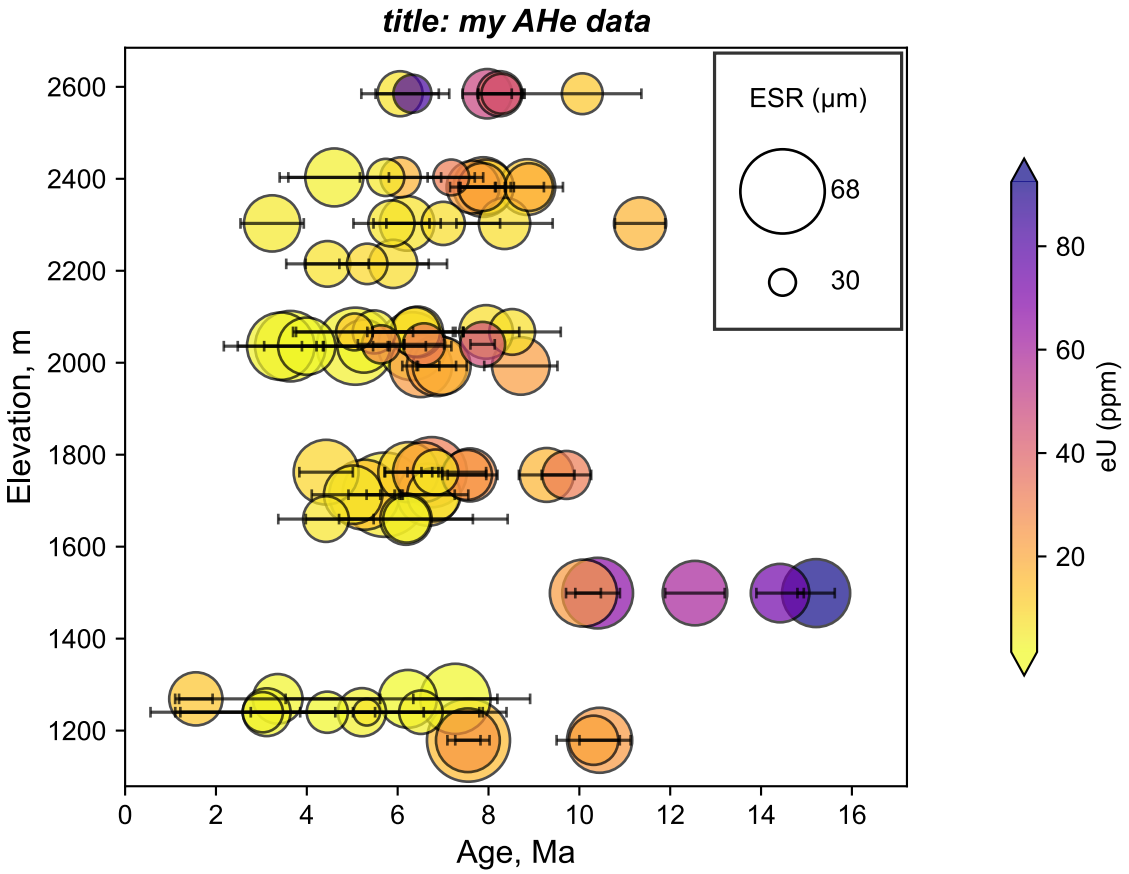
- This script reads data in from a tab-delimited text file, **`input_file`** (can also be a .csv). The data must contain the following columns: sample name, elevation, corrected age, error, Ue, ESR. (The column names do not have to be the same as in the example, as the header line is always skipped. The order also does not have to be the same, but if it is different, the user must adjust the order numbering in the script.)

3. Usage

- Ensure the input data file is in the same directory as the **`PyHeAT.py`** script.
- As a minimum, the user should edit the following in the script:
    - Desired **`title`**
    - **`input_file`** name
- Optionally, the user can also adjust:
    - Column order of **`input_file`**
    - (ESR-) legend label spacing
    - Opacity (alpha)
- Run this script from command-line with either:

```
./PyHeAT.py
python PyHeAT.py
```

4. Example



5. How to cite

If you use this plotting script, please cite this DOI.

6. Contact

If you have questions or suggestions for improvement, please do not hesitate to contact wapenhans@uni-potsdam.de