

The  **Stuttgart AG Puzzler**

Hint 1

You'll want to use TAP to solve that, and TOPCAT is a friendly tool to operate TAP.

And: Openngc is a nice, modern version of the NGC with a sensible license (in case you want to re-publish it. . .).

Puzzler hints with brief demos at every coffee break Tuesday and Wednesday.



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Hint 2

You'll want to pay attention to the service-provided examples on the GAVO TAP service to solve this. Also use the "Info" button after you've selected your example to learn more about how things work.

Another valuable thing to look at is what's in the "Service" tab, in particular if you want to figure out the positions.

And note that to draw HEALPix maps as described, you'll have to filter out a few OpenNGC objects that don't have positions.

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Hint 3

You can't select RA and Dec directly when GROUPing by HEALPix, because there are many different RAs and Decs in each group. But you can turn the HEALPix index into a position.

If you don't want to do a second query with an upload: Try ADQL subqueries (see our ADQL course if unsure).

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Hint 4

To get to the constellations, TAP (probably) won't help you at this point. But using the good old Simple Cone Search, you can turn positions into constellation names.

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