

### **Raw data**

The data which I propose to obtain from two of the National Radio Astronomy Observatory's facilities, the Very Large Array (VLA) and the Atacama Large Millimeter Array (ALMA), have a one-year proprietary period. After this time, the raw data are automatically made publicly accessible via a web-based archive.

For a third facility, the Green Bank telescope, no current archive exists. I will make the raw data I obtain from this facility available on my professional webpage, after the first paper utilizing them (which will advertise the availability of these data) has been refereed and accepted.

### **Processed products**

The primary product of this research will be radio-frequency VLA images of the Galactic center using multiple molecular tracers. At the end of my postdoctoral tenure, I will make the processed data available on my professional webpage in an image cube format from which spectra and maps of the gas distribution can be extracted.

At the same time, I will also make maps of the derived physical conditions, including density and temperature, available in the same way.

### **Software products**

An additional aspect of my proposed project is developing a code to model the radiative transfer of highly-excited ammonia transitions, used to measure kinetic temperatures in hot gas. As there is no published determination of the necessary collisional cross-sections for these transitions, I will produce my own set of extrapolated collisional coefficients for this work. After the first publication using these data, I will make the collisional coefficients publicly available through the Leiden Atomic and Molecular Database ([LAMDA](#)) so that they can be used in other studies.

I will also make the radiative transfer code that I develop to model the ammonia publicly available at the same time, through my professional webpage.