Where are you, Scutum? Tracking down a spiral arm with maser astrometry

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Edwin Hubble showed in 1926 that galaxies can be classified into three groups depending on their shape: ellipticals, spirals and irregulars. We know that our own Galaxy has a spiral shape. However, the details of the galactic structure like the number of spiral arms or their exact location are still under debate. In this talk, I will present recent efforts to unveil the structure of our Milky Way, a complicated endeavour due to our position in the Galaxy.

I will show how parallax observations of maser sources in star-forming regions are used to pinpoint the location of the Scutum spiral arm and how we determine its pitch angle(s).