

**Seminar SAW:
Mathematical practices in the context of the astral sciences**

Abstract

January 17, 2014

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The Babylonian zodiac: a mathematician's view of the sky

In the Babylonian astronomical compendium MUL-APIN, dating from the late second millennium BC, we read about the stellar constellations in the path of the Moon. One millennium later Babylonian scholars were publishing planetary ephemerides in which they predicted the positions of the planets in a 360° zodiac consisting of twelve zodiacal signs of 30° each. The numerical accuracy of these predictions was arc minutes, the absolute accuracy amounted to a few degrees. In this lecture I will describe the gradual way in which Babylonian astronomers came to introduce a theoretical 360° coordinate system in the sky by observing the motions of the planets with respect to the stars over centuries and how they gradually developed more and more refined mathematical methods to predict planetary positions in this theoretical coordinate system. By doing so they laid the foundations of theoretical astronomy for the next 50 generations of Greek, Arabic and European astronomers.