

## **In honour of .....**

Kepler straddled two worlds of thinking: the rational and the mystical.

On one hand he was embedded in the centuries-long tradition that the heavens reflected divine harmony and therefore must embody perfection. The circle, being the perfect form, must be the pattern on which the heavens moved.

On the other, he was a man of science who believed in measurement, observation and logical explanation. In his mind, the testing of hypotheses, the use of mathematics and logic were the paths by which the order in the universe was to be revealed.

The history of astronomy is bookmarked by leaps in thinking, leaps resulting from the challenge of a fundamental assumption. Copernicus challenged the Ptolemaic notion that the earth was at the centre of the universe and replaced the earth with the sun. Kepler challenged the notion that heavenly bodies orbited in perfect circles and replaced the circle with the ellipse. In doing so he ripped tortuous complexities out of the explanations of planetary motion and introduced physics into the heavens.

By moving the heavens from the realm of the divine to that of the material, he raised the need for new explanatory principals: if the motion is not divine, what moves the planets?

The structure and nature of the universe is a mystery we are still unveiling.

Kepler's Horizon and Foci were inspired by Kepler's work in the field of optics and light and by his three laws of planetary motion

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