ROTATIONAL PARAMETERS OF (21) LUTETIA
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1. Rotational parameters of (21) Lutetia

Table 1. Summary of the IAU rotational parameters of Lutetia.

Parameter	**Value**	**Ref.**
Rotation period	8.168270 ± 0.000001 h	[1]
Direction of the North pole	(RA,Dec) = (51.80º,+10.83º)	[2]
Zero-longitude	W(JD) = 289.50º + 1057.751519 (JD-J2000)	

[1]Carry et al. (2010) [2]Sierks et al. (2011)

The zero-longitude meridian intersects the center of a small crater which we propose to name "Lauriacum" (see Fig. 1). The center of this crater had original coordinates (longitude, latitude) = (0.43º, 37.75º) in the models delivered by LAM (v3 and v4). In the high-resolution model, the center of the crater corresponds to the facet #2361379[1]. The shape model with the center of Lauriacum along the zero-longitude is represented in Fig. 2.

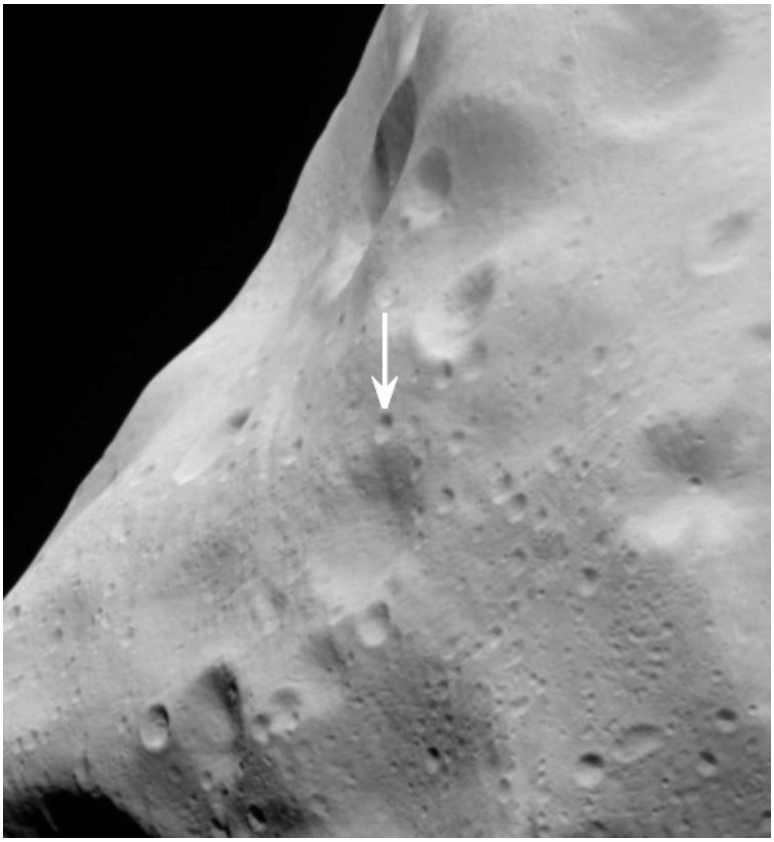

Figure 1. Location of the crater named "Lauriacum" on the NAC image "NAC_...15.42.41...". Its center is located at the pixel (361,871) of the image[2].

1 The numbering of the facet starts with facet #1.
2 The first pixel having coordinates (1,1).

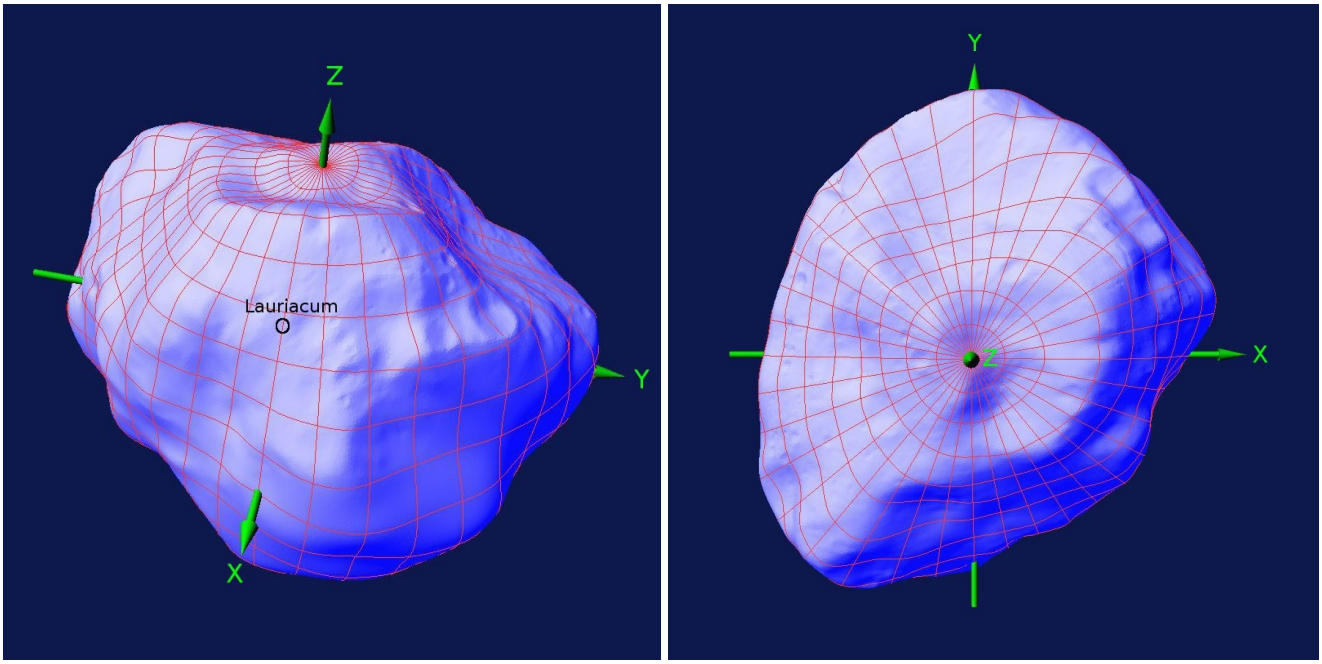

Figure 2. The shape model rotated to match the zero-longitude definition of Table 1.

2. Azimuthal and cylindrical maps

Two cylindrical maps of the observed surface of Lutetia with the definition of the zero-longitude are shown in Fig. 3 (high-resolution only) and Fig. 4 (mosaic of low- and high-resolution images) . An azimuthal map is shown in Fig. 5.

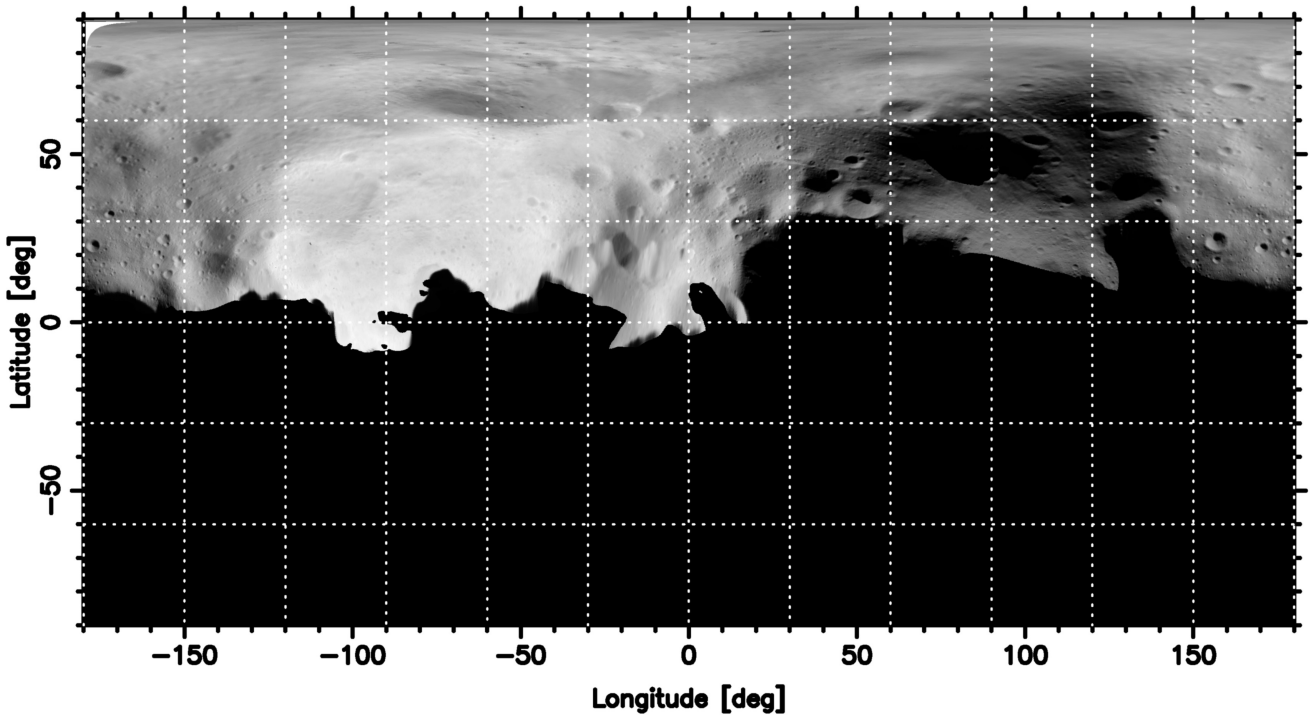

Figure 3. Cylindrical map of the surface of Lutetia (high-resolution only).

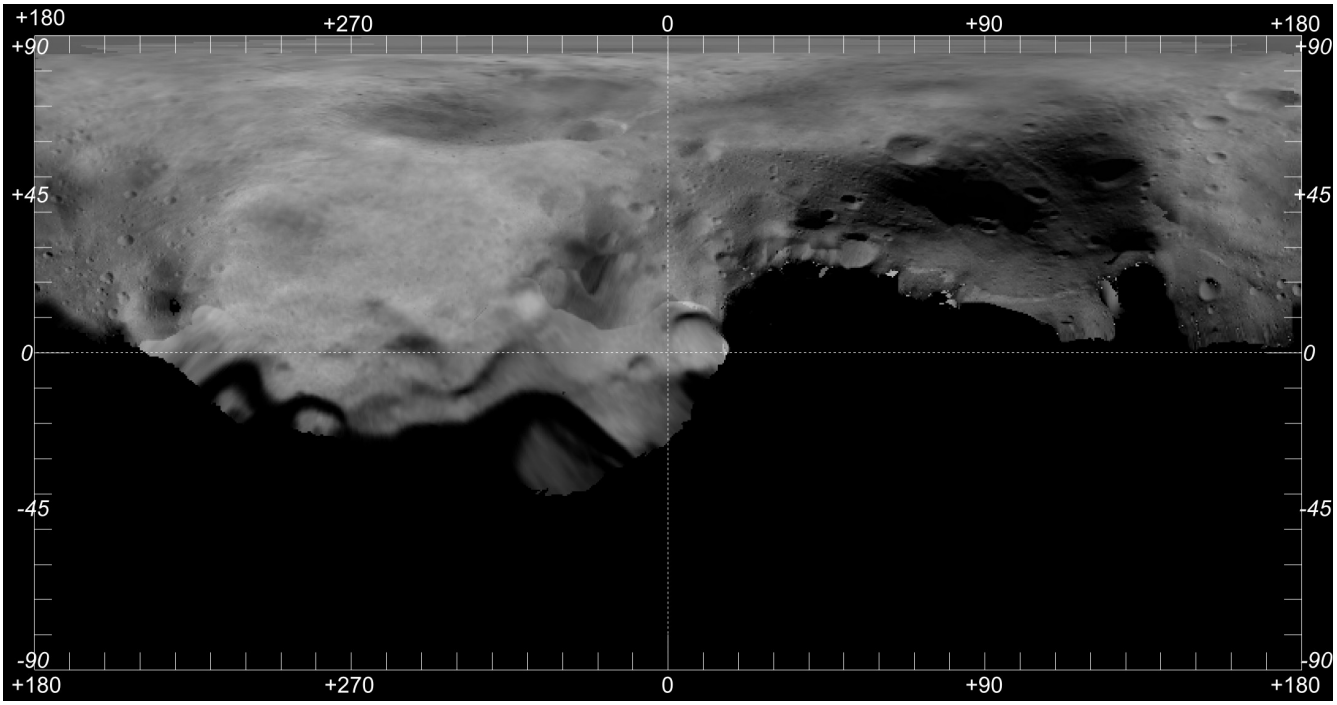

Figure 4. Cylindrical map of the surface of Lutetia (mosaic of low- and high-resolution images).

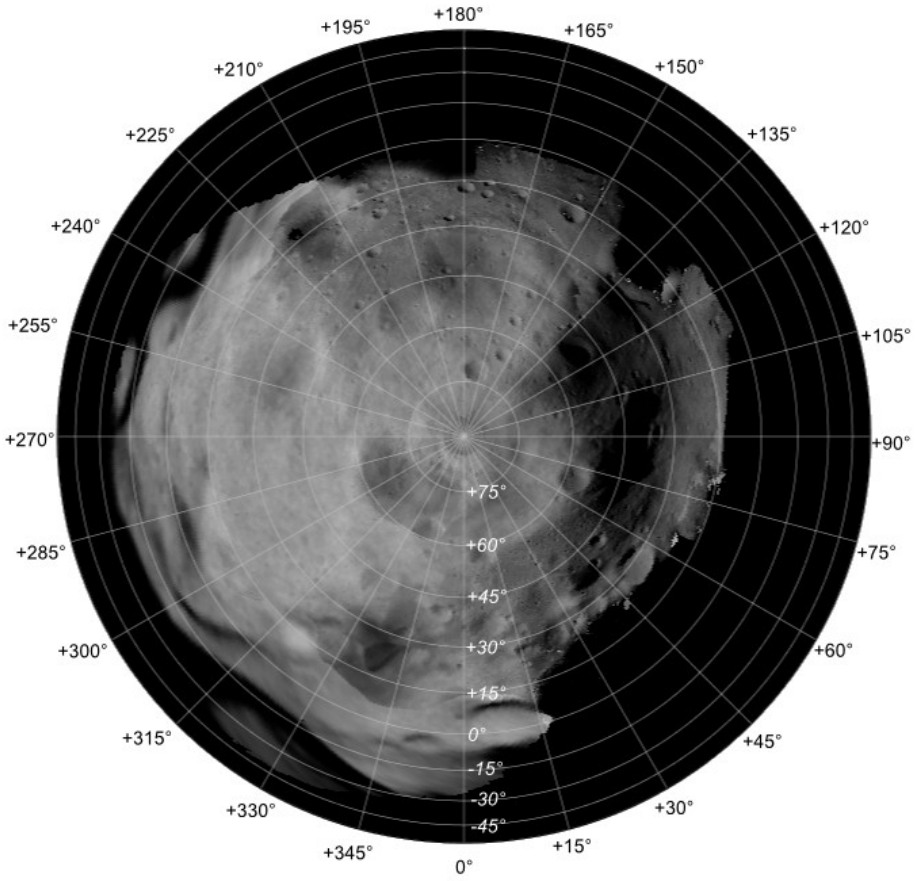

Figure 5. Azimuthal map of the surface of Lutetia (mosaic of low- and high-resolution images).