

L11a The Morphology of Comet C/1998 K5 (LINEAR) - Intermittent Fragmentation of the Nucleus ? -

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Comet LINEAR(C/1998 K5), which was discovered on May 2, 1998, exhibited an extended tail from July 1998. This tail was strongly concentrated with an extremely narrow shape. Our monitoring observations of this comet, performed from May through January 1999, indicate that the tail was composed of relatively large dust particles($\geq 0.1\text{mm}$), which should be provided continuously from the nucleus. The magnitude of this comet also increased rapidly in June-July, and had at least four small peaks until the end of our observation. The amplitude of each peak is about 1 magnitude. Although such periodic behavior may be due to the regular outbursts of a certain active region, we do not see any evidence of a large supply of small dust particles, which should be observed in regular outbursts of comets. In this paper, we discuss the possibility of intermittent fragmentation of the nucleus as the main supply of the large particles for the origin of the peculiar shape of this comet.