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Haohao Wang* (hwang@semo.edu), Math Department, MS6700, One University Plaza, Cape Girardeau, MO 63701, and **William Hoffman**. *Rees Algebra of Quadratically Parametrized Surfaces*.

Let f_0, f_1, f_2, f_3 be linearly independent homogeneous quadratic forms in the standard \mathbb{Z} -graded ring $R := \mathbb{K}[s, t, u]$, and $\gcd(f_0, f_1, f_2, f_3) = 1$. This defines a rational map $\phi : \mathbb{P}^2 \rightarrow \mathbb{P}^3$. The Rees algebra $\text{Rees}(I) = R \oplus I \oplus I^2 \oplus \cdots$ of the ideal $I = \langle f_0, f_1, f_2, f_3 \rangle$ is the graded R -algebra which can be described as the image of an R -algebra homomorphism $h: R[x, y, z, w] \rightarrow \text{Rees}(I)$. This paper discusses the free resolutions of I , and the structure of the $\ker(h)$. (Received October 09, 2012)