RATIONAL CONCHOIDAL SURFACE CONSTRUCTION

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ABSTRACT. The conchoid of a surface F with respect to given fixed point O in $\mathbb{R}^3$ is roughly speaking the surface obtained by increasing the radius function of F with respect to O by a constant. This paper studies *conchoid surfaces of ruled surfaces and spheres* and shows that these surfaces admit rational parameterizations. Besides explicit parameterizations of these surfaces we report on some remarkable geometric properties.

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