Marie José Bertin, Alice Garbagnai, Ruthi Hortsch* (ruthi@beammath.org), Odile Lecacheux, Makiko Mase, Cecília Salgado and Ursula Whitcher. Classification of Elliptic Fibrations of a Singular K3 Surface.

We classify, up to automorphism, the elliptic fibrations on the singular K3 surface X associated with the Laurent polynomial

\[ x + \frac{1}{x} + y + \frac{1}{y} + z + \frac{1}{z} + \frac{x}{y} + \frac{y}{x} + \frac{z}{y} + \frac{z}{x} + \frac{x}{z}, \]

the transcendental lattice of which is isometric to \( \langle 6 \rangle \oplus \langle 2 \rangle \).

In the paper, we give each elliptic fibration by Dynkin diagrams characterizing its reducible fibers, and the rank and torsion of its Mordell-Weil group. We will review this and explain Nishiyama’s method, which was used to obtain this classification. (Received September 11, 2016)