DECOMPOSITION OF COMPLETE
GRAPHS INTO POMPOUS CYCLES

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A *pompous cycle* is the composition (also called the lexicographic product),
$C_m[2K_1]$ arising from the cycle $C_m$ by replacing each vertex $x$ by two independent
vertices $x_0, x_1$ and each edge $xy$ by the edges of $K_{2,2}$ with vertices $x_0, x_1, y_0, y_1$.

We will present a complete solution for decompositions of $K_{8km+1}$ into
$C_m[2K_1]$ when

(i) $m \equiv 0, 2 \mod 4$, $k$ is arbitrary;

(ii) $m \equiv 3 \mod 4$, $k = 1$.

We also present some constructions for other sparse families of $K_n$.

This is a report on work in progress in collaboration with Petr Kovar and
Michael Kubesa, both from Technical University Ostrava.