A double broom $B_{2n}(r, s)$ is a tree on $2n$ vertices consisting of two stars with $r$ and $s$ vertices of degree one, respectively, whose centers are joined by a path of length $2n - r - s - 1$.

In 2002 the first author presented at this conference a result stating that for every $k \geq 1$ there exists a spanning tree of diameter $d$ factorizing $K_{4k+2}$ if and only if $3 \leq d \leq 4k+1$. The trees used in this construction for $2k+3 \leq d \leq 4k+1$ were double brooms $B_{4k+2}(r, s)$ for $s = k$ and $r = 1, 2, \ldots, k$ and for $r = 1$ and $s = 1, 2, \ldots, k - 1$. The result was published in 2007. In a recent (and so far unpublished) paper the second author together with Petr Kovar and Michael Kubesa established necessary and sufficient conditions for factorizations of $K_{2n}$ into simple brooms $B_{2n}(1, s)$.

We will present some new results on factorizations of $K_{2n}$ into double brooms $B_{2n}(r, s)$.

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