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The shuffle $u \sqcup\!\sqcup v$ of words u and v over alphabet A is the finite set of all words obtainable from merging the words u and v from left to right, but choosing the next symbol arbitrarily from u or v. The shuffle of two words u and v is the language $u \sqcup\!\sqcup v$ consisting of all words $u_1 v_1 u_2 v_2 \ldots u_k v_k$, where $k \geq 0$ and the u_i and the v_i are the words such that $u = u_1 u_2 \ldots u_k$ and $v = v_1 v_2 \ldots v_k$. It is well-known that it can be tested in polynomial-time whether or not $u \in v_1 \sqcup\!\sqcup v_2$ for given words u, v_1 and v_2 [J.-C. Spehner, Le Calcul Rapide des Mélanges de Deux Mots, TCS, 1986]. In this talk we consider the problem of determining whether or not a word u is a square for the shuffle product (i.e, there exists v such that $u \in v \sqcup\!\sqcup v$). Our approach is to represent words as linear graphs in which deciding whether or not a given word is a square for the shuffle product reduces to computing some constrained perfect matching. We shall also extend our approach to some related problems and propose future lines of research.