Tete-a-tete graphs and periodic diffeomorphisms of surfaces

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Abstract : Tete-a-tete twists describe certain mapping classes on surfaces with boundary ; they were suggested by Norbert A'Campo as a natural generalization of Dehn twists, with singularity theory in mind. We will see what a tete-a-tete graph is and how to obtain a diffeomorphism from it. Then I will try to convince you that those twists are a useful tool to describe diffeomorphisms of finite order and show some examples and applications.