

In the paper we try to give a view of the discrete logarithm problem, especially of related problems that appear in literature since 2001. These problems are based on a computation of Weil and Tate pairing on elliptic curves. We give a view of these problems including some reductions. We mention some chosen schemes based on these problems that are interesting because of their practical parameters, primacy of security proofs or because these schemes introduced the new problem. We try to cover precisely the most important definitions in this sector of cryptography because these definitions are omitted in the literature and it is often left up to reader to presume details by himself.