Mots-clés : PAC-Bayes, Generalisation, Optimisation,
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Abstract : PAC-Bayes learning is a promising modern theory for understanding the generalisation phenomenon in modern machine learning. This theory was initially developed through information theory, which may prove to be limiting for understanding precisely the generalisation capacity of deep neural networks, which is acquired through an optimisation process. Indeed, a large part of the PAC-Bayes literature does not dwell on the characteristics and positive impact of the learning phase to enrich the understanding of the generalisation phenomenon observed in practice. In this thesis, an optimisation view of PAC-Bayes is proposed and supported by numerous learning algorithms and generalisation bounds.