

# Frédéric Hérau

## Résumé

In this short course we will introduce some basic concepts concerning the Kramers Fokker Planck operator, and prove or give ideas of the proofs of some results of functional analysis, such as maximal accretivity, hypoelliptic estimates, compactness of the resolvent, and spectral and/or pseudospectral results.

## Références

1. “Hypoelliptic estimates and spectral theory for Fokker-Planck Operators and Witten Laplacians”,  
B. Helffer and F. Nier,  
Lecture notes in mathematics, **1862**. Springer-Verlag, Berlin, (2005).
2. “Semi-classical analysis for Kramers Fokker-Planck type operators”,  
F. Hérau, J. Sjöstrand and C. Stolk,  
Comm. Partial Differential Equations **30**, 4-6 pp. 689–760 (2005).