



Du
11
FÉV.
2015

14h00
-
15h30

RÉGA

Pierre Schapira "Microlocal Euler classes and index theorem"

IHP
Salle 314

INSCRIPTION

Pierre Schapira (IMJ)
Microlocal Euler classes and index theorem

I will show how to adapt the formalism of Hochschild homology for coherent sheaves on a complex manifold to a wide class of sheaves, including constructible sheaves on a real manifold M , $\mathcal{D}$ -modules on a complex manifold and, more generally, elliptic pairs. For that purpose, we have to work "microlocally", that is, on the cotangent bundle $\pi : T^*M \rightarrow M$ and the role of Hochschild homology is played by $\pi^{-1}\omega_M$, the inverse image of the topological dualizing complex on M (after having chosen a base ring $\mathbf{k}$). Then, to what we call a trace kernel we associate its microlocal Euler class, a class on T^*M supported by the microsupport of the kernel. The main theorem asserts that this class is functorial with respect to the composition of kernels.

This construction gives a new approach to the Riemann-Roch or Atiyah-Singer theorems.

URL of the page: <https://www.ihp.fr/fr/agenda/pierre-schapira-microlocal-euler-classes-and-index-theorem>



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HORAIRES

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.