



Du  
**04**  
OCT.  
2017

14h00  
-  
15h30

## **RÉGA**

**Michael Temkin "Logarithmic resolution of singularities" 14h-15h30**

IHP  
Salle 314

INSCRIPTION

Seminaire Réga

Michael Temkin (Einstein Institute of Mathematics)

Logarithmic resolution of singularities

The famous Hironaka's theorem asserts that any integral algebraic variety  $X$  of characteristic zero can be modified to a smooth variety  $X_{\text{res}}$  by a sequence of blowings up. Later it was shown that one can make this compatible with smooth morphisms  $Y \rightarrow X$  in the sense that  $Y_{\text{res}} \rightarrow Y$  is the pullback of  $X_{\text{res}} \rightarrow X$ .

In a joint project with D. Abramovich and J. Włodarczyk we construct a new resolution algorithm which is compatible with all log smooth morphisms (e.g. covers ramified along exceptional divisors). We expect that this algorithm will naturally extend to an algorithm of resolution of morphisms to log smooth ones. In particular, this should lead to functorial semistable reduction theorems.

URL of the page: <https://www.ihp.fr/fr/agenda/michael-temkin-logarithmic-resolution-singularities-14h-15h30>

In my talk I will tell about main ideas of the classical algorithm and will then discuss some logarithmic and (if time permits) stack-theoretic modifications we had to make in the new algorithm.



## **INSTITUT HENRI POINCARÉ - UAR839**

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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.