

*Séminaire des doctorants en Théorie des Nombres*  
*"Jouve-Pazuki"*

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**On the Fourier coefficients of meromorphic Jacobi forms.**

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It is a well known fact that a holomorphic Jacobi form  $\phi$  splits into the so called theta-decomposition, and that the associated theta coefficients (essentially the Fourier coefficients of  $\phi$ ) are modular forms. Although a similar decomposition is not possible if  $\phi$  is meromorphic, in their recent paper Dabholkar, Murthy, and Zagier extended this construction providing a canonical decomposition of  $\phi$ , defining the so called canonical Fourier coefficients of  $\phi$ , and describing their modular property in the case of poles of order at most 2. In this talk we show how to extend the previous construction to the case of poles of arbitrary order, and we prove that the canonical Fourier coefficients are the holomorphic part of a certain generalization of harmonic weak Maass forms which we call almost harmonic weak Maass forms, a new automorphic object recently introduced by Bringmann and Folsom.