Limits of complex integrals

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Abstract

I will explain how non-archimedean integrals considered by Chambert-Loir and Ducros naturally arise in asymptotics of families of complex integrals. To perform this analysis we work over a non-standard model of the field of complex numbers, which is endowed at the same time with an archimedean and a non-archimedean norm. Our main result states the existence of a natural morphism between bicomplexes of archimedean and non-archimedean forms which is compatible with integration. This is joint work with Antoine Ducros and Ehud Hrushovski.

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