In this session we will introduce the periods of integrals in the Milnor fiber of an isolated singularity $f : (\mathbb{C}^n, 0) \rightarrow (\mathbb{C}, 0)$. These periods of integrals have a series expansion that encode many invariants of the singularity, for instance, the structure of the monodromy endomorphism or the Bernstein-Sato polynomial of $f$. We will focus on how the series expansion of the periods can be determined from the resolution of singularities of $f$. The main reference of this session will be the work of Varchenko [1].

References