

Takeshi Saito: **The characteristic cycle and the singular support of an \mathcal{A} -sheaf**

We define the characteristic cycle of an \mathcal{A} -sheaf on a smooth variety of arbitrary dimension in positive characteristic using the singular support, constructed by Beilinson recently. The characteristic cycle satisfies a Milnor formula for vanishing cycles and an index formula for the Euler-Poincaré characteristic.