1067-14-1310 **Paolo Aluffi***, Math Dept, Florida State University, Tallahassee, FL 32306. *A new look at Verdier specialization.*

Let $X \subset V$ be a closed embedding, such that $V \smallsetminus X$ is nonsingular. In this situation we define a constructible function ψ on X, which agrees with the 'Verdier specialization' of the constant 1 if X is the central fiber of a 1-parameter family of varieties, with nonsingular general fiber. The function ψ encodes topological information about the complement $V \smallsetminus X$ near X; for example, the effect of singularities of X on the genus of nearby fibers if X is the central fiber of a family of curves. We discuss concrete methods for the computation of this specialization function, possibly including a Macaulay2 implementation of an algorithm computing ψ. (Received September 20, 2010)