Emmanuel Andronikof *

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Emmanuel Andronikof passed away on September 15, 1995 from a brain tumor discovered two years earlier, just after he had been named professor at the University of Nantes. He faced his illness with exceptional courage, never complaining on his misfortune or on the unfairness of this world. Perhaps his character was a product of his strict, orthodox and aristocratic Georgian education. An excellent sportsman, especially in boxing and swimming, he had a unique vision of life, able to spend long days in a forest with nothing but a Russian book of poetry. Needless to say, he was not interested in the games of power, not even in his own career. While he was devoted to Science, he looked at the scientific world as a theater with very few actors and many jokers, considering himself to be an extra.

Nevertheless, his contribution to Mathematics is highly significant. In his thesis, he succeeded in making a synthesis of the microlocalization functor of M. Sato and that of temperate cohomology of M. Kashiwara, defining the functor of temperate microlocalization. This opened the way to the linear analysts to study microlocally (*i.e.,* in the cotangent bundle) distributions, or more generally temperate cohomology classes, with the tools of homological algebra, sheaf theory and $\mathcal{D}$-module theory. In other words, this was the first step towards a "temperate microlocal algebraic analysis", and Emmanuel Andronikof began to apply his functor to handle various problems. He provided an illuminating proof of the Nilsson theorem on the integrals of holomorphic functions of "Nilsson class", he proved that the $\mathcal{C}^\infty$-wave front set of a distribution solution of a regular holonomic system coincides with its analytic wave front set, and he was the first to give a microlocal version of the Riemann-Hilbert correspondence, this last work being at the origin of further important developments (see [7] and [6]). He also had many projects that he was unfortunately unable to carry out to completion.

The departing of Emmanuel Andronikof leaves us with the memory of an excellent man, both rigorous and open, tough and gentle.

References

[1] E. Andronikof, *Intégrales de Nilsson et faisceaux constructibles,* Bull. Soc. Math. France **120** (1992) p. 51–85.

[2] _____, *On the $\mathcal{C}^\infty$-singularities of regular holonomic distributions,* Ann. Inst. Fourier (Grenoble) **42** (1992) p. 695–705.

[3] _____, *The Kashiwara conjugation and wave front set of regular holonomic distributions on complex manifolds,* Invent. Math., **111** (1993) p. 35–49.

[4] _____, *Microlocalisation tempérée,* Mémoires Soc. Math. France **57** (1994) 176 pp.

[5] _____, *A microlocal version of the Riemann-Hilbert correspondence,* Topol. Methods Nonlinear Anal. **4** (1994) p. 417–425.

[6] S. Gelfand, R. MacPherson and K. Vilonen *Microlocal perverse sheaves,* arXiv math.AG/0509440.

[7] I. Waschkies, *Microlocal Riemann-Hilbert correspondence,* Publ. Res. Inst. Math. Sci. **41** (2005) p. 37–72.

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Figure 1: Emmanuel Andronikof