

1077-01-1510 **Anne-Sandrine Paumier*** (paumier@math.jussieu.fr). *Human collectives in mathematical practices : the example of the writing of a theorem, the kernel theorem of Laurent Schwartz (1915-2002)*.

The kernel theorem ("théorème des noyaux") was first stated by Laurent Schwartz in 1950 at Cambridge during the International Congress of Mathematicians where he was awarded the Fields medal. It is also one of the starting points of his student Alexandre Grothendieck's thesis, where he defines a new class of abstract spaces, nuclear spaces, which are inspired by the theorem's property.

Schwartz' kernel theorem in fact encompassed many mathematical statements that may look very differently one from the other. In the paper, we use the theorem as a probe to study different human collectives involved, such as theoretic physicians, analysts, Bourbaki... We claim that this allow to catch some of their characteristics. We will look in detail at the technical mathematical aspects such as statements, notations...but also at visual aspects and authors' motivations. (Received September 20, 2011)