

1067-T1-1527 **ruggero ferro*** (ruggero.ferro@univr.it), via gabelli 57, 35121 padova, Italy. *Abstraction and objectivity in mathematics.*

I would like to read the theme of this conference the other way around: which problems in the philosophy of mathematics are raised from the teaching/learning perspective? For example. Why can we learn and understand mathematics? How do we learn mathematics? We cannot appeal to general philosophical principles and derive answers from them, because we would fall into a vicious circle: how do we know that a proposed philosophy is correct and can justify the deriving theory of knowledge? To avoid this, one has to investigate the ways of knowing and learning mathematics without any reference to a pre construed theory. But this process is internal to the human being. From outside we can only observe consequences and results of having acquired a notion. Even a description of what it is being done, is just a description in a language and should be interpreted. Being impossible to analyze the process from outside, why not trying to look at it from inside through introspection? The conclusions would be subjective! Why so? We are just talking about learning and understanding mathematics. I would like to show that, along this way, something could be said, for instance about abstraction, and the conclusions should be considered objective, according to a reasonable notion of objectivity. (Received September 21, 2010)