

Title:

"Grothendieck's approach to equality".

Abstract: In 2017 I started to learn how to use computer theorem provers, and one of my first serious projects was to formalise Grothendieck's definition of a scheme. During the process I discovered that his notion of equality was not the same as the notion of equality in the computer theorem prover. I have since discovered that equality is quite a subtle concept (and as a mathematician I spent 25 years doing research and being completely unaware of this). I will talk about what Grothendieck wanted from the concept of equality, and also about how it seems to be extremely difficult to pin down this idea.