## INTERDISCIPLINARY TEACHING OF THROWS IN HIGH SCHOOL

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During my years as a high school teacher I often observed that in high school they teach mathematics completely separately from other science subjects. Those who do not experience the beauty of mathematics can find the topics of study a bit arbitrary without real-life applications. Students tend to be interested in the laws of science which describe our world, so it's easy to see they could like mathematics more through physics. From my experiences, the visualization of the observed phenomena through various softwares can enlight the topic in a different way. Therefore, I think that modelling through softwares play a huge role in teaching science in high school. During my doctoral studies, I will be working on a textbook intended as a methodological guide which will mostly contain modelling tasks broken down by grade and subject for intermediate and advanced level groups. Through the course of model selection I will mainly take into account having the concepts of differential and integral calculus be related to the concepts of physical sciences in the projects.

In this talk I will show how one can teach the concept of projectile motion with the help of mathematics, physics and visualization with softwares. One can easily do experiments with this phenomenon but observing and describing this with mathematical tools can be interpreted in different ways.

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