Casyopée an open environment for learning about functions at upper secondary level

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Modelling geometrical dependencies by way of algebraic functions, and studying the geometrical properties of curves representing functions are essential mathematical activities that Casyopée makes very accessible for students. They allow students a better link between syntactical and semantic points of view in algebra and an easy introduction into calculus.

Casyopée has two main windows. The first one, (called the symbolic window) provides students with symbolic computing and representation capabilities as well as facilities for proving. The second one consists in a Dynamic Geometry (DG) window. Casyopée's two windows are closely linked. For instance Casyopée can compute a domain and a formula for "geometrical" expressions or functions related to measures, providing a capability to express algebraically geometrical dependencies. This "export" capability is of a great help for students when modelling algebraically geometrical functional dependencies or expressions.

The installation process requires only to download and execute a 8 Mbytes installer (http://casyopee.eu). Casyopée is currently successfully used in French and other countries at 9th grade and above and many resources for classroom use are available. Participants in the workshop will be introduced to Casyopée's main features and to learning situations for their classes.