

Autoformaths

Tools promoting independent work for students in mathematics

This project aims to set up a **self-assessment** and **self-training system**, intended for undergraduate mathematics students, in the form of integrated **Wims-type exercises** on the E-learn platform.

These **virtual classes** (whose organization differs according to the audiences and the themes studied) will focus on fundamental knowledge deemed essential in Mathematics undergraduate studies (integration, derivation of usual functions, real analysis, linear algebra, literal calculus, matrix analysis, etc.).

To optimize the system's efficiency, a trial test is set up for first-time students (in Mathematics Bsc) to assess their knowledge with regard to the expectations at the start of each degree. Based on their results, students are then directed by a referent teacher to the corresponding **Wims classes** of the self-assessment system, to correct or improve the mastery of basic mathematical tools.

This device could be included in fundamental teaching unit, in the first year of undergraduate studies, and could be the subject of an evaluation in continuous control, thus motivating the students to practice on the dedicated platform. Positioning tests can be implemented through the **Unisciel network** which can provide the structural packages. The educational content is produced and adapted by the educational team.

Tested for the first time by the freshmen enrolled for the 2019 academic year (nearly 150 students), this system will be extended to those enrolled in the second and third year of Bachelor, in support to the different teaching units, under the form of **virtual tutoring** or **continuous evaluation**. Later on, when it is operational, the system can be extended to other courses and other disciplines in hard sciences. The system could also help develop **personalized courses** in the case of conditional admissions.