

The informal interview, in English, will be based on the following topics (fundamentals of mathematics, physics and informatics), whose knowledge is considered relevant to successfully follow the Master program:

- Vector and matrix algebra;
  - Elementary functions (exponential, trigonometric functions, ...);
  - Integral calculus and differential calculus;
  - Differential operators (gradient, curl, ...);
  - Simple differential equations (e.g. harmonic oscillator, friction, ..);
  - Descriptive statistics and probability theory.
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- Newton Laws;
  - Energy conservation;
  - Maxwell equations;
  - I and II principles of Thermodynamics;
  - Equation of state for gas and liquids.
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- Knowledge of programming languages (python or fortran or C++ or Matlab or Mathematica or R, ...).