Soon scientists will be superfluous. Robots and mathematical algorithms take over scientific exploration of the world. The latest issue of Science describes two ways to discover and bring order to the laws of physics.

U.S. researchers have developed a mathematical method to automatically find and formulate physical laws of motion from the measured data. They have, inter alia, tested their approach in a chaotic double pendulum, similar to those unpredictable moving toys for the desktop. Without prior knowledge of either the physics, kinematics or geometry algorithm researchers managed to reach the laws of motion Newton as brilliant came just over three hundred years ago.

The difficulty is to find meaningful correlations in measurement data, and ignore irrelevant events that have not one iota the point. And the apparent simple explanation may hide a more covert context. Scientists have solved it by allowing his algorithm to predict data for individual elements of the system, and then compare with actual measurements. In this way, erroneous interpretations are ordered removed, and remains still the fundamental laws of physics.

- But the scientist is still needed, says Hod Lipson, one of the researchers at Cornell University.

- But he can focus on developing new theories instead of using their time to compare their models with data.

In the same issue of Science, researchers from the UK described its hembyggda robot "Adam". Adam is a large cabinet plate with a smart computer that can perform biological experiments, and come to the DNA code for different enzymes in yeast.

Adam starts with the identification of the enzymes involved in yeast cell metabolism. Then he formulates hypotheses of the provenance of the enzymes that the researchers had bet on the definition. Then plan and Adam performing experiments to test their hypotheses, by selecting genetically modified yeast cells and grow them and then measuring its growth.

So far, Adam arrived with 20 hypotheses for the genes behind 13 different enzymes that are important for yeast cell function. In 12 cases, the robot find the genes underlying the enzymes.
Chaotic pendulum.

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