Nobel laureate admits string theory is in trouble

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"WE DON'T know what we are talking about." That was Nobel laureate David Gross at the 23rd Solvay Conference in Physics in Brussels, Belgium, during his concluding remarks on Saturday. He was referring to string theory - the attempt to unify the otherwise incompatible theories of relativity and quantum mechanics to provide a theory of everything.

Gross - who received a Nobel for his work on the strong nuclear force, bringing physics closer to a theory of everything - has been a strong advocate of string theory, which also aims to explain dark energy. "Many of us believed that string theory was a very dramatic break with our previous notions of quantum theory," he said. "But now we learn that string theory, well, is not that much of a break."

He compared the state of physics today to that during the first Solvay conference in 1911. Then, physicists were mystified by the discovery of radioactivity. The puzzling phenomenon threatened even the laws of conservation of mass and energy, and physicists had to wait for the theory of quantum mechanics to explain it. "They were missing something absolutely fundamental," he said. "We are missing perhaps something as profound as they were back then."

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