



THE  
ABEL  
PRIZE  
2026

## Gerd Faltings awarded the 2026 Abel Prize

The Norwegian Academy of Science and Letters has decided to award the Abel Prize for 2026 to Gerd Faltings of the

Max Planck Institute for Mathematics, Bonn, Germany

*“for introducing powerful tools in arithmetic geometry and resolving long-standing diophantine conjectures of Mordell and Lang.”*

### Historical mathematical riddles at the heart of the Abel Prize

#### Towering figure

Gerd Faltings is a towering figure in arithmetic geometry. His ideas and results have reshaped the field. Not only did he settle major long-standing conjectures, but he also established new frameworks that have guided decades of subsequent work. His exceptional achievements unite geometric and arithmetic perspectives and exemplify the power of deep structural insight.

#### Diophantine equations

One of the oldest and most central parts of mathematics is solving equations using only integers (a whole number which is either positive, negative or zero). These problems are called diophantine equations. One example is given by the Pythagorean theorem ( $x^2+y^2=z^2$ ). This equation has infinitely many solutions that are integers. Two simple examples

are  $3^2+4^2=5^2$ , or  $9+16=25$ , and  $52+122=132$ , or  $25+144=169$ . Diophantine equations are at the core of Gerd Faltings' work within arithmetic geometry.

#### Historical mathematical mysteries

A diophantine problem known as the Mordell conjecture (1922) had fascinated the mathematical world for 60 years. This conjecture says that a wide class of equations can only have finitely many rational solutions. Faltings did not start out with the goal to solve the conjecture but hoped something interesting would come out of the work. Suddenly cracking this riddle that had puzzled the mathematical world for so long, made him famous overnight in 1983. The proof amazed the experts. Thus, the Mordell conjecture became Faltings' theorem.

In the following decades new problems were solved like mathematical pearls on a string for Faltings.

In 1989, another mathematician, Paul Vojta, found an alternative solution to the Mordell conjecture. Inspired by this, Faltings developed a new tool, known as Faltings' product theorem. Using this tool, he cracked another enduring mathematical conundrum – the Mordell-Lang conjecture. This is also one of his great achievements.

### Early years

Gerd Faltings was born in 1954 in West Germany. In secondary school he won a national prize for mathematics, and after his Ph.D. he spent a year as a research fellow at Harvard.

*"My first goal was to get tenure, so I could make a living out of mathematics", Faltings said in 2024.*

At the age of 28, in 1982, he became a full professor at the University of Wuppertal, Germany. The following year he proved the Mordell conjecture and thus turned it into Faltings' theorem.

While working at Wuppertal, he met fellow mathematician Angelika Tschimmel. The couple married in 1984. Sadly, Angelika passed away in 2011. In 1985 Faltings took up a full professorship at Princeton University, where their two daughters were born. He also was a visiting scholar at the Institute for Advanced Study in Princeton, New Jersey on several occasions.

Faltings and his family moved back to Germany in 1994, and he took a post at the Max Planck Institute for Mathematics in Bonn. Being a director there gave Faltings exceptional freedom to pursue his research. As one of the most prominent mathematicians in Germany, he attracted a lot of talent, and the institute in Bonn became a worldwide centre for arithmetic algebraic geometry.

Today, an emeritus director at the Max Planck since 2023, Faltings continues his research.

*"I'm still doing maths, but I don't have to go to administrative meetings", Faltings said in a previous interview.*

### Awards and honours

2026 – The Abel Prize

2024 – Pour le Mérite

2017 – Cantor Medal

2015 – Shaw Prize

2014 - King Faisal International Prize

2010 - Heinz Gumin Prize

2008 – von Staudt Prize

1996 – Leibniz Prize

1988 – Guggenheim Fellowship

1986, 1994 – ICM Speaker

1986 – Fields Medal

1983 – Dannie Heineman Prize

### Member of

- North Rhine-Westphalian Academy of Sciences, Humanities and the Arts
- Deutsche Akademie der Naturforsch – er Leopoldina
- Berlin-Brandenburgische Akademie der Wissenschaften
- Academia Europaea
- The Göttingen Academy of Sciences and Humanities
- The Royal Society (UK)
- National Academy of Sciences (US)
- The Norwegian Academy of Science and Letters

### About the Abel Prize:

- The Abel Prize award ceremony will take place in Oslo on May 26, 2026
- The Abel Prize is funded by the Norwegian Government and amounts to MNOK 7.5
- The Abel Prize is awarded by the Norwegian Academy of Science and Letters and presented by HRH Crown Prince Haakon
- The choice of the Abel Prize laureate is based on the recommendation of the Abel Prize committee, which is composed of five internationally recognised mathematicians.
- For more information, please visit [www.abelprize.no](http://www.abelprize.no)
- To schedule an interview with the chair of the committee or the laureate, we kindly direct you to the press contacts mentioned under
- To schedule an interview with the chair of the Abel Prize committee or the laureate, we kindly direct you to the press contacts mentioned under
- Press room is open from March 19, at 12.00 (CET)

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