

Speech by
Prof. Martin Hairer

It is a great honour to have been selected to receive the 2022 King Faisal Prize for science, jointly with my former colleague Nader Masmoudi. This is also an opportunity to reflect on how I've come to stand here today. It certainly couldn't have been without the support and encouragement of my wife Xue-Mei and my family, as well as all the colleagues and collaborators who have been sharing their mathematical insights with me throughout my career. I have also been very fortunate to grow up and live in countries that provided generous support for science, allowing me to find the time to concentrate on mathematical research.

As a science, mathematics is unusual in the sense that although mathematicians do sometimes rely on experimental evidence or computer simulations to build their intuition, the resulting mathematics stands on its own and is in principle valid forever. It may and does of course happen that there is disagreement on the validity of a proof, but in virtually every case it is possible to get to the root of it and to eventually reach a consensus. What I would like to take away from these brief reflections is a note of optimism. Over the past years, what started out as legitimate differences of opinion between various groups of people has in some cases grown to the extent of threatening our shared perception of truth and reality. The fact that scientists in general and mathematicians in particular have been able to build a shared intellectual edifice that thrives on contributions from people with vastly different backgrounds, be it educational, cultural, political, etc, should give us hope that it is not too late to reverse this destructive trend.

To conclude, I would like to express again my appreciation for this reward, thank you very much.