A ripple of excitement spread across the country after the role of two Pakistanis emerged in one of the most significant scientific discoveries of the century. One of the two is Imran Khan, a 25-year-old researcher from Quetta.

Khan worked with a team from the Gran Sasso Science Institute, one of the institutes involved in the research that recorded gravitational waves for the first time in history, confirming a major prediction of Albert Einstein’s 1915 general theory of relativity.

He credits this achievement to years of hard work and dedication and, of course, his mother.

“My mother [has] struggled as much as I have in getting me to this point in my life; she is always there to listen to my concerns and, sometimes, even complaints, which I only discuss with her. She is my real motivation and, most importantly, I always feel her prayers get me through very tough times,” he shared with The Express Tribune in an exclusive interview.

He was also inspired by his hard working father. “My father is an ex-soldier. Looking at his hard work in raising and educating all of his children has given me the strength to tackle challenges,” he added.

25-year-old scientist from Quetta took part in discovery of gravitational waves
Hard work, not just luck, is what got Khan where he is today.

Currently an early stage researcher at the Italian National Institute of Nuclear Physics, Khan received one scholarship after another. Having completed his BSc in Telecommunication Engineering at FAST Peshawar campus, he went onto Koç University in Istanbul for an MSc in Optoelectronics and Photonics Engineering on a scholarship.

“I finished my MSc in September 2015 and the same month received a Marie Curie fellowship in the GraWIToN project; so, I’m now doing a PhD in Astroparticle Physics at the Gran Sasso Science Institute in Italy,” Khan explained.
“After developing good experimental skills with optical resonators, I aimed for application level research in photonics in my intended PhD program and the European collaboration VIRGO welcomed me in the Marie Curie ITN (initial training network) program GraWIToN,” he said, on getting involved in the research into one of the biggest discoveries of the century.

Khan also credits Professor Ali Serpengüzel, his teacher at Koc University in Turkey, who motivating him to become a good researcher.

Karachi bike repairman inspired Mavalvala

When asked how he felt about Dr Nergis Mavalvala making headlines in Pakistan, he shared, “All the credit of this discovery goes to scientists and engineers who worked decades of their lives in designing, implementing this research topic and finally detecting the waves, such as, Dr Nergis Mavalvala.” He went onto to add that he felt “honored to be part of such teams of scientists and engineers, and to learn from them so to contribute in future towards the advancements in gravitational wave astronomy.”

Khan also spoke about his friendship with his Indian colleague Akshat Singhal, who was also part of the team. “Akshat and I have shared good times while travelling (due to Marie Curie trainings and outreaching) and we have lunch together almost every day together. We hope to collaborate on gravitational waves research in the future, as I am part of the experimental team and he is part of the data analysis team in the VIRGO collaboration.”

There is no doubting Khan’s drive and ambition. And he far from being done. The 25-year-old goes on to say, “The gravitational waves discovery has given me the chance of participating further in improving the detector design and sensitivity. So, I would like to take this opportunity to jump into further depths of photonics.”

He has been away from home since 2007, and says he would go to any part of the world for his work.

Khan, however, plans to eventually return to Pakistan – for good.

“I believe, being young, I have a lot to learn and to experience in Europe and the US in order to have diverse research knowledge, which I believe, is important to be a good researcher. But my ultimate destination is Pakistan, where I would like to promote the culture of research and development in universities.”

That’s not all. He intends to inspire Pakistani youth to come forward and work in the field of science and technology,
which, he strongly believes, will lead us to a developed Pakistan.

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