Honorary Fellowship speech, Bristol, 20 July 2017

Vice-Chancellor and President, distinguished colleagues, ladies and gentlemen:

For most scientists, including me, public recognition – degrees, prizes – is the icing on the cake. The cake itself is learning something new: the delight when we collide with what I call the elementary particle of sudden understanding: the clariton. But for me, today, this honour is different. Whatever I have achieved I owe to the supportive environment of Bristol: the city the university, and particularly the physics department, where I have worked and lived happily for more than twice as long as I haven’t – in our building, just granted historic status by the European Physical Society

Our building is at the top of the city. Even higher was my balloon ride – perfect for a theoretical physicist: looking down on everyone else, supported by hot air.

At school, Bristol was my first choice of university. You (we) turned me down. In that very year – 1959 – a great discovery in quantum physics was being made here, by David Bohm and Yakir Aharonov – we recognized Yakir much later with an honorary doctorate, and I gave the oration in this hall. Professor Sandu Popescu, who you just heard, was Aharonov’s student, so today completes a delightful circle.

For my undergraduate study I went further west and south, to Exeter, and for my Ph.D, far north: St. Andrews. Those universities were very good for me – from what I later heard about the unforgiving head of Bristol physics at that time, I might not have survived here. But my arrival in Bristol, six years later, was spectacular, in a way that illuminates what a university should be and at best is.

In my teenage years, when I first encountered the life of the mind, I dreamed that university would be a place where, as well as developing in many ways – discovering relationships, meeting people from different cultures – there would be intense discussions of matters intellectual. Before Bristol, that somehow didn’t happen – not the fault of those excellent universities – mine, probably.

But on the day I came to investigate Bristol as a possible place for postdoctoral research, I was taken to lunch by John Ziman, the professor of theoretical physics, where I met his colleagues from philosophy and biology. and enjoyed exactly the long, wide-ranging conversation I had hungered for, taking in science, literature, sex, politics, philosophy... And over the years Bristol has got even better. In my opinion, it is the most intellectual city of its size in Britain – and I mean the city outside the
university as well as the university itself. You students graduating today are indeed fortunate to have lived here.

For all my decades in Bristol, our physics department has been almost continuously a happy place, buzzing with the thrill of discovery. A previous head of department was asked why he had moved to Bristol from a superficially more prestigious place that I won’t name. “In Bristol, when someone discovered something, they ran up and down the corridors, knocking on office doors and telling everyone. Where I came from, they locked their desks.”

This is worth reflecting on. Academic politics has a notorious reputation of being unpleasant. As many people have claimed (going back at least to Samuel Johnson), academic disputes are so bitter because the subjects of disagreement are so unimportant. I can only speculate – as a theorist, it’s my job to speculate – that Bristol physics has been so happy because when we disagree it’s about important things. This is itself important, and something you who are graduating today can take away. Disagreement is not something to be avoided, in a university or elsewhere. It is essential – a fuel, that drives understanding. Although our scientific disagreements are often emotional – we are human, and often say things we regret – at its best it isn’t personal: we have somehow learned that it’s possible to disagree without being disagreeable.

I describe Bristol University in two equally important words that I have only used about one other place – words that should be an aspiration for every university, especially today, when some influential people prefer emotion and assertion to evidence:

Bristol university is a place of passionate rationality.

Whatever you do – now I speak directly to graduating students – aim high. Don’t take the easy way. Let your reach exceed your grasp. I’m still making theoretical physics, scribbling, calculating, tracking elusive claritons, with immense pleasure and some satisfaction. But never complete satisfaction: grasp falls short of reach. I still dream of creating some physics that is as beautiful, as perfect, as a single note from Louis Armstrong’s trumpet.

Thank you.