## Academic fathers and Mother Christmas

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In the mid-1980s I visited the Max Planck institute in Bonn to give a talk. While I was there, some of the German mathematicians told me about the concept of an academic father. They said that your PhD supervisor was your academic father, his supervisor was your academic grandfather, and so on. In that way: 'We can all trace our lineage back to Gauss!'

In my own case, Sam Edwards was my supervisor and I was under the impression that Nicholas Kemmer had been his supervisor. Kemmer was retired by the time I joined the Physics department at Edinburgh and I never met him as such. Our only acquaintance was that on his rare visits to the department, he would call hello in passing, as my office door was always open.

I once discussed this concept with colleagues on some social occasion and one of them reckoned that Kemmer's supervisor had been Weyl. So it turned out that someone I was collaborating with at the time was a sort of academic cousin. I'm not sure just what kind of cousin. My wife is an expert on matters like 'second cousin, twice removed', but it's all Greek to me. Although I'm actually a bit better at Greek that at cousinage.

Recently I checked up on this and found to my surprise that Sam's supervisor was Julian Schwinger and in turn his had been Isidor Isaac Rabi. This was encouraging, as both were Nobel Laureates in physics. Then Rabi's supervisor had been Albert Potter Wills, who in turn was supervised by Arthur Gordon Webster (No, me neither.). He at least was supervised by Helmholtz, but after that the trail went cold again and it didn't look like we were heading back to Gauss. There must have been some reason why I had thought that Kemmer was Sam's supervisor. Perhaps that was when he had still been at Cambridge University? Then he would have changed to Schwinger at Harvard? If Kemmer had been Sam's supervisor for part of the time then he could still count as an 'academic father'.

So I thought that I would check Kemmer out and found that his supervisor had been Pauli (not Weyl!) and in turn Pauli's had been Sommerfeld, whose had been Lindemann (the mathematician, not the later physicist), and his had been Klein. Then Klein's supervisor was Plucker, who was supervised by Gerling and (at last) we are back to Gauss, who was Gerling's supervisor. But can I claim to be descended from Gauss? Well, I'm still not sure.

Of course this is all a rather old-fashioned idea. There are growing numbers of women in physics and mathematics and if we want to talk about academic descent then we should include academic mothers and, in time, academic grandmothers; and so on. Inclusiveness is the watchword nowadays and as this is Christmas Eve I shall be hanging up my stocking in the hope that Mother Christmas will put some nice presents in it. Certainly she has made a great job of decorating our tree: see below.



If you have been, then thank you for reading; and I wish you a happy Christmas!