

Stephen J. Crothers

Brief CV and Publications

In about March 2003 I formally commenced part-time candidature for the PhD in the School of Physics at the University of New South Wales (UNSW), Sydney, Australia, under the supervision of Professor John K. Webb. The support supervisor was Professor Michael Ashley. I was initially engaged in the development of a computer simulation program in relation to Extra-Solar Planets.

About a year later I began work on General Relativity as a sideline. After a few months I came up with a result that proved black holes inconsistent with General Relativity. I presented this to Professor Webb. He was initially enthusiastic, and even arranged for me to deliver a lecture to his undergraduate General Relativity class. Before my informing him, Webb had never heard of Schwarzschild's original solution.

Later Webb arranged for me to have some contact with his colleague, Professor Paul Davies at Macquarie University in Sydney. He and Davies, both being British, knew each other from their Cambridge days. Davies initially replied in a derogatory tone, claiming that Schwarzschild's original metric, which he had never before seen, was not Ricci flat, and did not satisfy Einstein's field equations. I proved these claims false, at the request of Webb. That drew more attention from Davies. Unfortunately, Davies turned out to be rather inept, so he sent my analysis to Professor Peter Szekeres of the University of Adelaide, son of George Szekeres of the Kruskal-Szekeres extension. He proved just as inept. He too had never before heard of Schwarzschild's original solution, and claimed that it was equivalent to Hilbert's metric (the one always and erroneously called "Schwarzschild's " solution by the majority of the relativists and the writers of textbooks). I provided a demonstration that this claim is false. Evidently Szekeres either did not understand this or did not want to hear of it. He dismissed my analysis unscientifically. Davies, in subservience to Szekeres, then failed to respond any further. Webb began to falter on the strength of the incompetent advice.

Webb also insisted that I confer with Professor Michael Kruchiev at UNSW. I reluctantly complied. When I walked into Kruchiev's office he immediately told me that he was not interested in discussion of my work, but if I needed his help, he said, "I am all yours". He evidently thinks himself a big-shot in science. There was some brief exposition by Kruchiev of the Kruskal-Szekeres extension. I remarked that this gives a non-static solution to a static problem (isn't that a contradiction?). He looked at me stupefied. I terminated the meeting after about 10 minutes, as it was obviously pointless.

Webb then attempted to engage Professor Victor Flambaum at UNSW. Flambaum refused to meet with me or to read my papers, claiming, according to Webb, that I had no chance of being right. At that time there was a Russian visitor at UNSW (Flambaum and Kruchiev are also Russians). Webb discussed the matter with the visitor. The visitor claimed that Schwarzschild's original solution was wrong. He also claimed that he had

just completed writing a book on General Relativity in which he derived the black hole solution following the work of Weyl. I pointed out to Webb that this claim was nonsense as it is clearly argued in Weyl's book, 'Space, Time, Matter' that there is no interior solution as claimed by the black hole relativists. I referred Webb to the relevant pages in Weyl's book.

I had a meeting with Webb some time later, in his office, for discussion of the science. He understood nothing, and told me so; but he lent his support to my continued research.

In mid to late 2004, with the support of Webb, I changed my PhD thesis to research in General Relativity.

In late 2004 and early 2005 Webb was in Cambridge on Sabbatical. He told me that he would discuss my work with his colleague John Barrow, and with a bloke named Joao Magueijo who also fancies himself a theoretical physicist. I got nothing from Webb in relation to these two colleagues of his. In fact, Webb was silent, but eventually replied to my email, clearly indicating that he was no longer in support of my work. He even became abusive, to which I responded appropriately, not being one to allow anyone to intimidate me. I had initially thought Webb a decent chap, but it turned out that he is in fact a rather disingenuous fellow.

I was then published in Progress in Physics, by invitation of the Editors. Webb would not recognise the publications claiming in so many words that Progress in Physics was not to be taken seriously.

I wrote up my thesis and made representation to Professor Mike Gal for early submission. Webb informed me that he was not prepared to "sign off" on my thesis and that I must change my thesis topic if he was to continue as my supervisor. I rejected his ultimatum, and informed Gal. Gal told me that I did not need Webb's consent to submit, but since my submission was early, I would have to go through a bureaucratic process to get my thesis submitted, and that the School of Physics would support my submission. Gal informed the Head of School, Professor Warwick Couch, of the situation and arranged a meeting in Couch's office. I was to meet Couch in the company of Gal. Later Gal claimed that he was mistaken in his advice on how early submission was to be effected.

The meeting took place. Gal and Couch insisted that I send a paper to Physical Review and paid no regard to my publications in Progress in Physics. They also insisted that I allow Professor Chris Hamer of UNSW to read my papers so that Hamer could send them a report and his recommendations. I met with Hamer a couple of days later and gave him several of my published papers.

About a week or so later I received an email from Hamer, along with a copy of his report and recommendation, which he had sent to Couch and Gal. He claimed that I was but an

"apprentice". He had evidently read only one of my papers and did not understand anything. His report contained a gross misrepresentation of my work. He had actually **altered my work** and thereby claimed that I was in error and that I should not be permitted to submit and that if I wanted a PhD from UNSW I must alter my topic as suggested by Webb.

I wrote in protest to Gal and Couch of Hamer's misrepresentation and incompetence. Couch replied that I was rude in my remarks about Professor Hamer, and totally disregarded Hamer's **alteration of my work and misrepresentation thereof**.

I wrote to the University Academic Committee in protest. The Academic Committee replied in full support of the School of Physics, and completely ignored Hamer's alteration of my work, his misrepresentation of my work, and his incompetence. Where in the Presiding Member Faculty of Science, Dr. David Cohen, defends Gal and the School of Physics, and conveniently omits addressing most of the issues upon which I specifically called for his comment.

I was then formally without a supervisor (although actually without a supervisor since early 2005 when Webb withdrew his support), and therefore effectively expelled de facto from PhD candidature since the University rules do not allow candidature without a supervisor, as the Academic Committee and the professors well know. No one in the School of Physics would replace Webb as supervisor, and the University officials all knew this. By this tactic the University eliminated me from the PhD programme, whilst maintaining a façade of integrity, or so it thinks.

I received a letter dated 16 December 2005 from UNSW threatening me with legal action if I did not pay fees for 2005. I wrote back denying liability for the fees, since I had effectively been expelled and was without any supervisor for that year. The Deputy Vice Chancellor wrote back waiving the fees, but making no comment as to the misconduct of Hamer and the other professors.

During the course of these events I attempted to engage in discussion so-called "experts" in General relativity. Amongst them were included all the members of the International Committee for General Relativity and Gravitation. Of the latter I managed to engage M.H.A. MacCallum in some discussion. MacCallum was from the outset rude and condescending, and inept. He next provided some incorrect argument as to why I was wrong and the usual relativists right. After MacCallum, the gloves came off. Anyone who was rude or otherwise behaved as a smart-arse I responded to bluntly. And I still do, since I refuse to turn cheeks, having discovered that the majority of people understand only the power of money and the persuasiveness of force. So if it's a fight they want then it's a fight they'll get. Pasty-faced softies however, cloistered away in universities are not much of a challenge; but there are so many of them, like cane toads in the breeding season. And so I now make no bones about how I view blokes who, like K. Thorne and Ned Wright, prance about with long pony tails and matching sandals, or

wear earrings and otherwise dress and behave like girls (most "male" physicists nowadays).

J. Berkenstein (member of the International Committee) wrote to me but offered no science, and simply called me an "antiquarian" and generally insulted me. He then disappeared.

I had some correspondence with J. Pullin (member of the International Committee). He understood nothing and went to sleep, never to be heard of again.

I also had some correspondence with one J. Sennovilla in Spain. He was rude from the outset and understood nothing about type 1 Einstein spaces.

I also wrote to the famous Mr. Roy Kerr, of the Kerr solution, and pointed out errors in the standard interpretation of his metric, and provided him with copies of my relevant papers containing the rigorous mathematical proofs. As I did not hear from him I sent a second email complaining to him that it was discourteous of him not to reply. He finally replied on the 2nd March 2006, and it was pathetic. First, he told me that my complaint of his discourtesy was "insulting crap". Then he told me that my work is "rubbish" and referred me to the usual change of co-ordinates (e.g. Kruskal-Szekeres). He offered no mathematical refutation or sound scientific arguments, although I requested him to provide this. I pointed out that he was circular in trying to refute me by referring me to the Kruskal-Szekeres type co-ordinates since I have rigorously proved the Kruskal-Szekeres co-ordinates invalid. Evidently that was too sophisticated for his poor brain. Kerr simply threw a tantrum and took his bat and ball home when it became apparent to him that he couldn't win with mindless doubletalk, evidently being of the view that facts which upset his applecart can be disposed of by ignoring them. Very convenient I'm sure, but certainly not science.

I have also had some correspondence with a number of other sheepish relativists of no consequence. Not one offered any science, just the authority of Hawking, Penrose, Einstein, and others. All were rude, stupid and incompetent (precisely what they accused me of being, evidently taking umbrage for my return of the epithets). Other big-shots in black holes and big bangs, such as Thorne, Misner, Israel, Rees, Penrose, Hawking, Ellis, Wald, little-shots such as J. Moffat, J. Barrow, S. Carroll, R. d'Inverno, B. Shutz, some tiny-shots not worth a mention, and a few other scribblers of textbooks and popular science, simply ignore correspondence. Evidently they think that ignoring work that invalidates their claims is scientific method. However, that is actually scientific fraud.

My papers were posted to the electronic archive of the [Abdus Salam International Centre for Theoretical Physics](#), Trieste, Italy, but members of the International Committee for General Relativity and Gravitational and/or their associates, servant or agents, arranged for all my papers to be removed from the ICTP. It is now clear that the ICTP is also actively engaged in the suppression and falsification of science. My papers are cited on the website of the [American Mathematical Society](#) (the mathematicians seem to see

what the relativists cannot, or will not). In consequence of my work, subsequent to publication thereof, I was invited to the editorial boards of [Progress in Physics](#) and [Bulletin of Pure and Applied Sciences E](#) (Mathematics). I have been invited to present papers before conferences in Tucson, Arizona (February 2006) and St. Petersburg, Russia (August 2006), to contribute to a number of books, and to edit and review other books.

Neither black holes nor big bangs are consistent with General Relativity - General Relativity does not predict these alleged phenomena. They are due entirely to incompetence in geometry. The basic issue is very simple. Consider the usual Minkowski line-element:

$$ds^2 = c^2 dt^2 - dr^2 - r^2(d\theta^2 + \sin^2\theta d\phi^2),$$

$$0 \leq r < \infty.$$

The radius of curvature, R_c , on this metric is the square root of the negative of the coefficient of the infinitesimal angular quantities, namely $R_c = r$. The proper radius, R_p , on this metric is the integral of $\sqrt{-g_{rr}}$,

$$R_p = \int_0^r dr = r = R_c.$$

The fact that $R_p = R_c$ is due to the fact that Minkowski space is pseudo-Euclidean. In this case when $R_c = 0$, $R_p = 0$, obviously.

Now consider the usual line-element for the gravitational field as used by the relativists ($c = G = 1$), which they incorrectly call "Schwarzschild's solution", and on which they merely *assume* that $0 < r < 2m$ is permissible therein,

$$ds^2 = \left(1 - \frac{2m}{r}\right) dt^2 - \left(1 - \frac{2m}{r}\right)^{-1} dr^2 - r^2(d\theta^2 + \sin^2\theta d\phi^2).$$

The radius of curvature is $R_c(r) = r$, but the proper radius is,

$$R_p(r) = \int \left(1 - \frac{2m}{r}\right)^{-1/2} dr = [r(r - 2m)]^{1/2} + 2m \ln|r^{1/2} + (r - 2m)^{1/2}| + K,$$

Where $K = \text{const}$. Clearly R_p and R_c are not the same in Einstein's gravitational field, except in the infinitely far field where they coalesce, because at infinity, space is Euclidean. Now the lower limit of the proper radius is zero, and this occurs only when r

= 2m and $K = -m \ln(2m)$. Thus, when the proper radius $R_p = 0$, the radius of curvature $R_c = 2m$. These are scalar invariants for Einstein's gravitational field, and are independent of any admissible r-coordinate system. The fictitious point-mass is always located at $R_p = 0$. And generally speaking, r is nothing more than a parameter related to distance in Minkowski space which is mapped into the proper and curvature radii in Einstein's field by means of functions on the metric, determined by the very structure of the metric. But this procedure is actually superfluous, as r can be eliminated from all consideration; but I will not do that here.

Most relativists, including Mr. Kerr, do not understand that two radii are defined on the line-element for Einstein's gravitational field. They are all ignorant of the fact that $R_p(2m) = 0$ and $R_c(2m) = 2m$ for their preferred line-element, and instead erroneously drive the radius of curvature down to zero by means of nonsensical "coordinate transformations", under the misapprehension that, as in Minkowski space, the radius of curvature is identical to the proper radius, which is nonsense in Einstein's gravitational field. The inequality of the two radii in Einstein's field (except at infinity) is an inescapable consequence of Einstein's pseudo-Riemannian geometry. Furthermore, they all assume that a singularity must only occur where the Riemann tensor scalar curvature invariant (the Kretschmann scalar)

$f = R_{\alpha\beta\sigma\mu}R^{\alpha\beta\sigma\mu} = \infty$. However, none of them have ever proved that Einstein's theory requires this. The assumption is actually demonstrably false, but with it they go searching for a suitable "change of coordinates" to make it so when $r = 0$, having assumed that their r is the proper radius, which is also false. They have all violated the irrefutable and elementary mathematical fact that a geometry is entirely determined by the form of its line-element.

Consider the general line-element

$$ds^2 = A(r)dt^2 - B(r)dr^2 - C(r)^2(d\theta^2 + \sin^2\theta d\phi^2),$$

$$A(r), B(r), C(r) > 0.$$

The solution to this general metric, in accordance with those principles which lead to the usual line-element for Einstein's gravitational field, is

$$ds^2 = \left(1 - \frac{2m}{\sqrt{C(r)}}\right)dt^2 - \left(1 - \frac{2m}{\sqrt{C(r)}}\right)^{-1}d\sqrt{C(r)}^2 - C(r)^2(d\theta^2 + \sin^2\theta d\phi^2),$$

$$C(r) = [|r - r_0|^n + (2m)^n]^{2/n},$$

$$r_0 \in \mathfrak{R}, n \in \mathfrak{R}^+, r \neq r_0,$$

where r_0 and n are entirely arbitrary real constants. The black hole singularity does not occur because this metric is well defined on $-\infty < r_0 < \infty$. Note that Minkowski space is

merely a parameter space and r in Minkowski space is merely a parameter for the proper and curvature radii $R_p(r)$ and $R_c(r)$ respectively, in the gravitational field, given by

$$R_c(r) = \sqrt{C(r)},$$

$$R_p(r) = \int_{-\infty}^r \left(1 - \frac{2m}{\sqrt{C(r)}}\right)^{-1/2} d\sqrt{C(r)} = [\sqrt{C(r)}(\sqrt{C(r)} - 2m)]^{1/2} + 2m \ln|\sqrt{C(r)} + \sqrt{(\sqrt{C(r)} - 2m)}| - m \ln(2m),$$

so that in the limit, $R_p(r_0) = 0$ and $R_c(r_0) = 2m$, **irrespective** of the values of the arbitrary real constants r_0 and n . Thus, for $-\infty < r_0 < \infty$, $0 < R_p(r) < \infty$. There is only one singularity, at the arbitrary r_0 in Minkowski parameter space, corresponding to $R_p(r_0) = 0$ in the gravitational field. If one chooses $n = 3$, $r_0 = 0$, and $r > r_0$, Schwarzschild's true solution is obtained, wherein $0 < r < \infty$. If one chooses $n = 1$, $r_0 = 2m$, and $r > r_0$, the usual line-element is obtained, but clearly for which $2m < r < \infty$. There is no interior region in any case, and no horizon. The concept of an event horizon or trapped surface is humbug. The parametric distance $|r - r_0|$ is always zero when $r = r_0$, irrespective of the value assigned to r_0 , and this is mapped into $R_p(r_0) = 0$ and into $R_c(r_0) = 2m$ in all cases. Thus, General Relativity does not predict or permit the absurd black hole. Furthermore, for the same fundamental technical reason, General Relativity does not predict or permit the equally absurd expansion of the Universe or the ridiculous Big Bang.

Here is yet another unproved assumption of the relativists - that one line-element is sufficient to describe Einstein's gravitational field. Two line-elements are actually required; one for the interior of a body and one for the exterior region surrounding it.

If those vainglorious relativists, including Mr. Kerr, want to hold on to their precious but ridiculous black holes and prove me a mug into the bargain, they must rigorously prove that the geometrical relations on the Minkowski line-element by which the proper radius and the radius of curvature are determined, do not hold for the general line element given above, satisfying $R_{\mu\nu} = 0$, and in particular do not hold on their usual metrics for the gravitational field. They should also prove, which is equivalent for the purpose, that General Relativity requires of necessity that a singularity must occur where the Riemann tensor scalar curvature invariant is unbounded. But without making up their own *ad hoc* geometry (which is precisely what they have always done), this is impossible, and so they must admit to an error in schoolboy mathematics; but then, what of their reputations and their jobs?

It was recently brought to my attention by the folks at ArchiveFreedom that they received a letter of disapproval of the report herein (to which their website contains a link) on the dishonourable acts and omissions perpetrated by the physics professors and Academic Committee of the University of New South Wales, from the founder of its School of Physics, Emeritus Professor Heinrich Hora. The letter was forwarded to me for response. Mr. Hora claims that his University and his professors did no wrong, and told me that my report is insulting to UNSW, its professors, and himself. He does not

disapprove of the serious misconduct of his professors one bit. Professors at UNSW seem to think that they can commit fraud with impunity. I doubt that the courts would agree with them.

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