Errors in Mathematics & Physics and the Misleading Positive Mass Theorem of Schoen and Yau

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Abstract. Some theorists believed that physicists need not get into pure mathematics since many mathematicians are ready to help. However, such a belief is proven false from our experience in general relativity because, it seems, none of the mathematicians have proven very useful in physics. The basic problem is that mathematicians and physicists have gone through very different trainings. In fact, most mathematicians do not understand physics, in particular the principle of causality because causality is not their main concern. Here we point out that the mathematicians turn physicists such as Hawking, Penrose, Christodoulou, Klainnerman, Yau, Witten, Atiyah, and Faddeev have no positive contributions to general relativity. In particular, the positive mass theorem of Schoen & Yau has misled us to believe Einstein's general relativity as almost perfect and thus prevented the necessary rectifications and any improvement for 38 years. Because of the existence of repulsive gravity, Einstein's notion of gravitational mass is invalid and general relativity must be extended to a five-dimensional theory. Also, the electromagnetic energy is not equivalent to mass. In conclusion, to solve a problem, physicists must understand the related pure mathematics themselves.

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