21 Wangenheimstr. 21¹

Recd 29 / X <u>repld to 1 / XI '19.</u> Then written 7 / XI (v. fully) about 6 / Nov. RS & RAS meeting, <u>& about MacMahon, Pt-standard, etc.,</u> enclosed also MacMahons letter to use.²

Berlin-Grunewald, 19 October 19

Most esteemed Doctor,

In reply to your friendly letter of the 14th, so full of material, I would like to express at once my sincere thanks and my joy over your words. True, it is a long time since I have occupied the office of rector at our university. It always lasts only a year here. But that is of course incidental. What is important and very valuable for me is your communication that you are likewise working on the task of renewing international scientific exchange—truly, a beautiful goal, worth the sweat of noble brows, as we say here. I also find your idea of initially limiting yourself just to the discipline of mathematics a very happy one. One must not want too much at once, and out of all the sciences, mathematics is probably the best suited in this regard, since it is the furthest removed from all material and selfish interests. You may be certain that I will do everything in my scant power

¹ Translator's note: Added in the top margin in pencil.

² Translator's note: These notations are in English in the original.

to work in the same direction as you. In this regard, I am happy to agree that, if you find it useful, you may publicize parts of my remarks at the Academy's last Leibniz session, but under one very essential condition: there may not be <u>the least</u> suggestion that this publication came from me, directly or indirectly. There is a great danger here. In such a case, the effect could be precisely the opposite of the one intended. Our experiences here with well-intentioned, optimistic attempts at association have been too poor. They are mostly clumsy and not only fail to attain their goal but do immeasurable harm by causing good people to receive rude answers and even insults. We have therefore only agreed here to continue to exercise great restraint, but otherwise

to happily shake every hand that is just offered in friendship. Naturally, there are exceptions among us as well, but they are nonetheless, thank God, a vanishingly small minority and will hopefully become ever more so. For the rest, there are still more copies of my "remarks" at your disposal if you wish.

Now to the report, extraordinarily interesting to me, about the proceedings at the most recent British Association concerning relativity theory and your other comments in that regard. According to this, the situation [there]³ is still somewhat different from what I thought, for here the view [is] widespread that the motion [effect on] the light rays with respect to the sun has been proved [beyond] objection.

What do I think about Einstein's theory of gravitation? Unfortunately, I cannot say in one word. At the beginning, I was very unsympathetic to this theory,⁴ especially on account of the boundary conditions⁵ at infinity, even if I did not find a logical contradiction anywhere. With time, I then got used to⁶

³ Translator's note: Here and below, words in square brackets are partially or fully covered by a flap of paper. In all cases, the reconstruction seems clear.

⁴ Translator's note: "Very unsympathetic to this theory" is underlined in pencil.

⁵ Translator's note: "The boundary conditions" is underlined in pencil.

⁶ Translator's note: This paragraph is highlighted by a double vertical line in pencil in the margin.

this theory's way of looking at things and became ever more receptive to the beauties of the perfection that it offers. Even the concern about the boundary conditions at infinity disappeared when Einstein introduced the hypothesis that space is enclosed in itself,⁷ hence has no boundaries at all.⁸

So I believe that the decision can come about only through success, namely through experience,⁹ and precisely for this reason, your reports on the results of the scrutiny of the various measurements are so extraordinarily interesting to me. Now, where your own theory is concerned, it would of course in any event be of the greatest importance if this theory also led to a positive, measurable effect in any area.¹⁰ It would in any event be furthered incomparably more by the proof of such an effect than by the proof of the absence of the Einstein effects.

With sincere greetings,

Your devoted,

Planck

⁷ Translator's note: "In itself" is added above the line.

⁸ Translator's note: This paragraph is highlighted by a double vertical line in pencil in the margin.

⁹ Translator's note: "The decision can come about only through success, namely through experience" is underlined in pencil.

¹⁰ Translator's note: This passage is highlighted by a vertical line in pencil in the margin.