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Complex Angular Momentum and Energy in Three-Particle Amplitudes.

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When this paper was in the press, the author received a communication form Dr. ALESSANDRINI who pointed out that certain difficulties which he and Professor OMNÈS were having with regard to this problem are also present in this paper. This concerns the summations over the magnetic quantum numbers m'_{jk} and M'_i in eq. (4.20). Though these summations are ordinarily finite, they can tend to infinite sums as l'_{jk} tends to infinity. Now it turns out that the Clebsch-Gordon coefficients occurring in (4.20) diverge exponentially as $2^{m'jk}$ for large values of m'_{jk} and this would destroy the complete continuity of the kernel. However, it may be worth-while pointing out that for large values of m'_{jk} with $m'_{jk} + M'_j = M$ (M fixed) the function $\langle J + l'_i M'_i | \theta'_i \varphi'_i \rangle$ occurring in (4.20) behaves as (see ref. [12]), p. 147)

$$\langle J + l'_i M'_i | \theta'_i \varphi'_i \rangle \sim \left(\operatorname{cotg} \frac{\theta'_i}{2} \right)^{M-M'} , \qquad M'_{jk} \to -\infty ,$$

and it would therefore seem that one would have to perform to θ'_i integration in the kernel in order to make a definite and final assertion regarding the complete continuity of the kernel. This however, is an extremely difficult task to accomplish.

I am indebted to Dr. ALESSANDRINI for pointing out this difficulty to me.

This note was intended for pubblication at the end of the main paper. We are very sorry that by a mistake this was not done. We publish it here at the request of the author.