VI. CONCLUSION

We considered the EPR correlation of two accelerated particles in a Kerr-Newman background and found that the correlation apparently decreases as seen in the directions of flat spacetime as does the degree of violation of Bell's inequality. We derived the Wigner rotation and showed that maximal violation of Bell's inequality can be achieved through appropriate coordinate transformations of the local inertial frames. In this new inertial frame the EPR correlation can be extracted up to the outer event horizon which is to be expected for an observer at infinity.
However at the outer horizon r_+ and below, for both the observer at infinity and the free fall observer, the EPR correlation is unmeasurable. In particular the rotation angle for an observer approaches negative infinity on both counts and so the correlation will not be extracted once both particles have gone over the outer even horizon. This occurs because the flow of spacetime itself does not allow the experimental set up required to extract the EPR correlation. Hence due to frame dragging effects becoming so intense one cannot achieve the relatively static condition required for extraction and so no further measurements may be made on the particles in question which means that the information stored in their spin states will become irrecoverable. Despite the apparent loss of information as measured by such an observer, it is actually stored by the black hole up to the singularity where theory fails to predict what will happen.

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