

BLACK HOLE AND EQUIPOTENTIAL PHOTON SURFACE UNIQUENESS IN ELECTROVACUUM

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I will start talking about the Einstein equation in electrovacuum, highlighting all the information it encodes. Then, I will introduce the spherically symmetric family of solutions, namely the Reissner-Nordström spacetimes. Finally, as a result of a joint project with Cederbaum and Borghini, I will characterize the Reissner-Nordström spacetime as the unique solution in electrovacuum in presence of a black hole horizon or an equipotential photon surface.