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Application of a light-front coupled cluster method[1] SOPHIA
CHABYSHEVA, JOHN HILLER, University of Minnesota-Duluth — As a test of
the new light-front coupled-cluster method in a gauge theory, we apply it to the
nonperturbative construction of the dressed-electron state in QED, for an arbitrary
covariant gauge, and compute the electron's anomalous magnetic moment. The
construction illustrates the spectator and Fock-sector independence of vertex and
self-energy contributions and indicates resolution of the difficulties with uncanceled
divergences that plague methods based on Fock-space truncation.

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