LoI EF08:

1) Impact of new $(g - 2)_\mu$ measurements

2) Concrete BSM models: direct vs. indirect reach at colliders

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Concerning EF08 I find the following ideas interesting/relevant:

1. Impact of new $(g - 2)_\mu$ measurements
   The new $(g - 2)_\mu$ measurement at Fermilab will improve the experimental predictions by about a factor of ~ 4. This may reveal a clear more than $5\,\sigma$ deviation from the SM.

   I think it will be of high interest to work out the implications in various BSM models. What can be learned from such a deviation? What are the upper limits on some (electroweak) BSM particles? Are there concrete targets for future colliders?

2. Concrete BSM models: direct vs. indirect reach at colliders
   Concrete BSM models can be tested directly via searches and indirectly via precision measurements (e.g. $(g - 2)_\mu$, see above, but also others like electroweak precision observables or the Higgs-boson mass).

   I think it will be of high interest to work out the complementarity of various colliders in this respect. What can be learned from the direct and indirect constraints (taking into account not only the measurements, but also their respective experimental and theoretical uncertainties). How does collider experiment 1 compare to collider experiment 2?

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