## APR21-2021-020072

Abstract for an Invited Paper for the APR21 Meeting of the American Physical Society

## The World in 2050 - and Beyond

MARTIN REES, Cambridge University

Our Earth is 45 million centuries old. But this century is the first when one species ours can determine the biosphere's fate. There will be threats to climate and biodiversity from the collective 'footprint' of 9 11 billion people seeking food, resources and energy. In addition, our globally-linked society is vulnerable to the unintended consequences of powerful new technologies not only nuclear, but (even more) biotech, cyber, advanced AI, space technology, and so forth. If all of us – passengers on 'spaceship Earth' want to ensure that we leave it in better shape for future generations we need to promote wise deployment of new technologies, while minimizing the risk of pandemics, cyberthreats and other global catastrophes. This is a challenge that requires international collaboration.