



Proposal WG

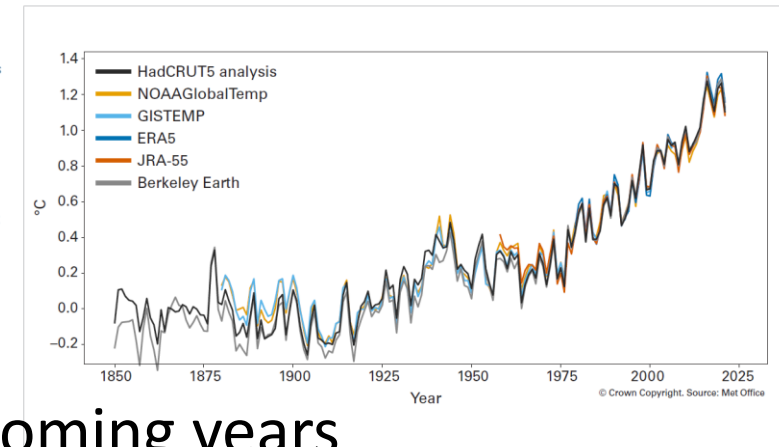
Physics and the Green Economy

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Key points

Figure 2. Global annual mean temperature difference from pre-industrial conditions (1850–1900) for six global temperature data sets (1850–2021). For details of the data sets and processing see [Data sets and methods](#). Source: Met Office, United Kingdom of Great Britain and Northern Ireland.



- Issues around climate change are set to grow in the coming years
 - Intimately connected with energy security, sustainability, the environment
 - Also poverty, inequality, mass migration, the human condition, etc
 - These are Global problems that require a Global effort, quest for Green Economy
- This is a multidisciplinary endeavour
 - Basics sciences, e.g. physics, chemistry, mathematics, computing, etc
 - Engineering, Human and Social Sciences, Law, Health Sciences
- Also fraught with political influences
 - Differentiate between academic discourse and political discourse
 - Distinguish between Climate Action and Climate Activism

What distinct role should IUPAP be playing?

- Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi awarded 2021 Nobel Prize in Physics
 - Provided the basis for current climate models and helped sound an early alarm on human-caused climate change.
- An important contribution to IYBSSD
- See <https://www.iop.org/strategy/physics-climate-change-sustainability/global-green-economy>

Do not compete with,
but enhance the work of
the IPCC through the
role of physics

Proposal

- Working Group on Physics and the Green Economy (Cf WG12:Energy)
 - Identify, facilitate, grow, inspire, promote, encourage, engage, discuss, debate, etc., the **unique** role that physics is and should be playing in this area
 - Entrench an evidence-based approach to responses to climate change studies
 - Establish a strong bridge between physics and the broad international public on these topics
 - Suggest and encourage ways of incorporating Green Economy thinking in university curricula and research training
- Composition
 - Chaired by one of the recent Nobel Prize winners
 - Comprising other two Nobel Prize winners plus 12 other champions, physicists and other climatology experts drawn from across the world, an open call for nominations
- The WG is tasked to propose to EC a programme of activities for itself – **low cost**
 - Advise Executive Council on actions to be taken, work to be done, statements to be issued
 - At least one major conference on Physics and the Green Economy over the next 3 years
 - Liaise with Regional, national Physics Society, with other Unions in other fields in the spirit of IYBSSD.
 - Target an International Day of Physics for Society and Sustainable Development or of Basic Sciences for Sustainable Development