

Climate numbers and climate wars. A fatal attraction?

Andrea Saltelli

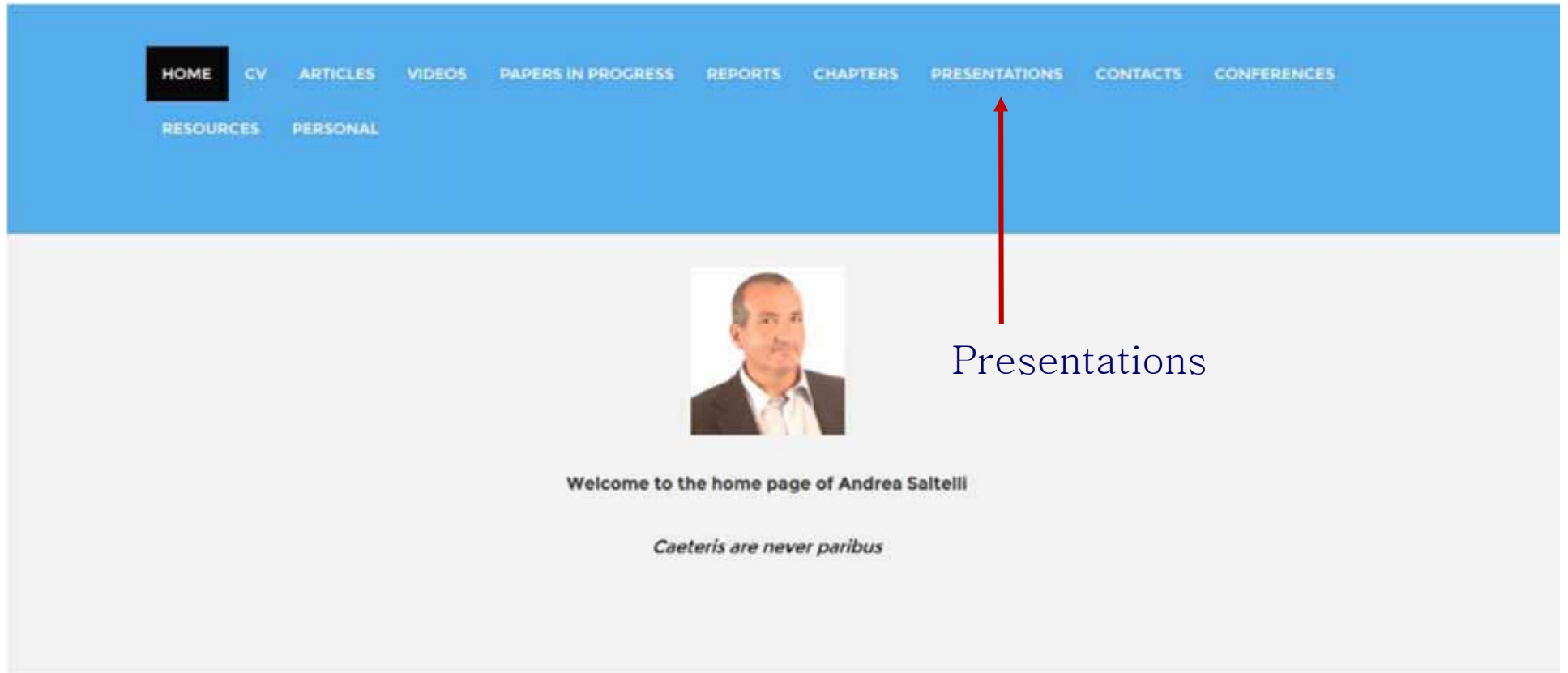
Centre for the Study of the Sciences and the Humanities (SVT) -
University of Bergen (UIB)

Institut de Ciència i Tecnologia Ambientals (ICTA) -Universitat
Autonoma de Barcelona (UAB)

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Hva bør vi gjøre? (VIT212)

andrea.saltelli@uib.no

www.andreasaltelli.eu



Where to find this presentation

andrea.saltelli@uib.no

sensitivity analysis,
sensitivity auditing,
science for policy,
impact assessment, ...

What if even she is wrong?



On TV Series over series where lab-based forensics (science) adjudicates cases

Forensics, [medicine, biology, economics, health and nutrition] has produced serious misdiagnoses

How about climate's science modelling efforts and cost benefit analyses?





Ecological Economics 10 (1994) 197–207

ECOLOGICAL
ECONOMICS

The worth of a songbird: ecological economics as a post-normal science

Silvio O. Funtowicz ^a, Jerome R. Ravetz ^{b,*}

^a *CEC-Joint Research Centre, Institute for Systems Engineering and Informatics, I-21020 Ispra (Va), Italy*

^b *The Research Methods Consultancy Ltd., Gresham House, 144 High Street, Edgware, Middx HA8 7EZ, UK*

(Received 21 December 1992; accepted 30 July 1993)

An old paper, a PNS ‘classic’



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Cited by 310 (Scopus) or by 715 (Google Scholar)

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Funtowicz and Ravetz pick a paper on the economics of the greenhouse effect “since the paper displays considerable sophistication in the handling of uncertainties in data.”

They note:

“the paper by Nordhaus is liberally sprinkled with caveats...”



One such caveat is – in the words of William Nordhaus – the difficulty to move from the “terra infirma of climate change to the terra incognita of the social and economic impacts of climate change” ... but:



Sensible policies on global warming should weight the costs of slowing climate change against the benefits of slower climate change. Ironically, recent policy initiatives, such as the Kyoto Protocol of 1997, have been introduced without any attempt to link the emissions controls with the benefits of the lower emissions.

— *William Nordhaus* —

AZ QUOTES

Having duly acknowledged Nordhaus' careful wording on uncertainty F&R proceed to deconstruct his work using the freshly minted NUSAP.



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“[Although] in his rhetoric at least, the author shows a clear awareness of the presence of the various sorts of uncertainty, [...he] does not successfully manage the problems of uncertainty.”

Table 1

Impact estimates for different sectors, for doubling of CO₂, U.S. (positive number indicates gain; negative number loss) (Nordhaus, 1991, Table 6, p. 932)

Sectors	Billions (1981 \$)
<i>Severely impacted sectors</i>	
Farms	
Impact of greenhouse warming and CO ₂ fertilisation	- 10.6 to + 9.7
Forestry, fisheries, other	Small + or --
<i>Moderately impacted sectors</i>	
Construction	+
Water transportation	?
Energy and utilities	
Energy (electric, gas, oil)	
Energy demand	- 1.65
Non-electric space heating	1.16
Water and sanitary	- ?
Real estate	
Land-rent component	
Estimate of damage from sea-level rise	
Loss of land	- 1.55
Protection of sheltered areas	- 0.90
Protection of open coasts	- 2.84
Hotels, lodging, recreation	?
<i>Total</i>	
Central estimate	
Billions, 1981 level of national income	- 6.23
Percentage of national income	- 0.26

Sources for Table 6: Underlying data on impacts are summarised in EPA (1988). Translation into national-income accounts by author. Details are available on request.

“The hyper-precision in the expression of the key number - 0.26% [...] shows that this is one of those ‘magic numbers’ designed to produce confidence in the existence of a hard core of objective fact deep inside the mass of intuitive fuzz.”

For Nordhaus - based on a ‘hunch’ this -0.26% could become -2% ...

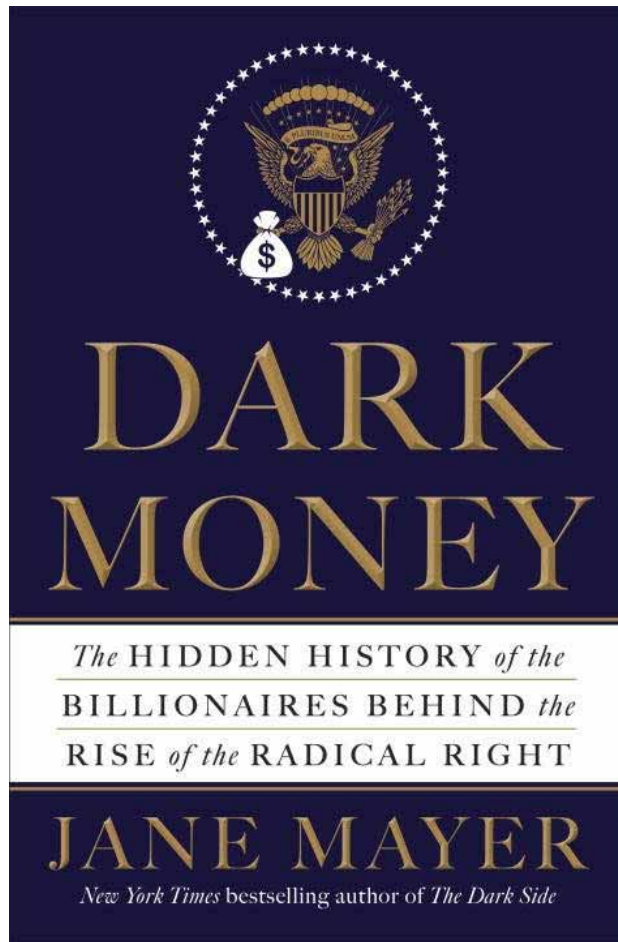


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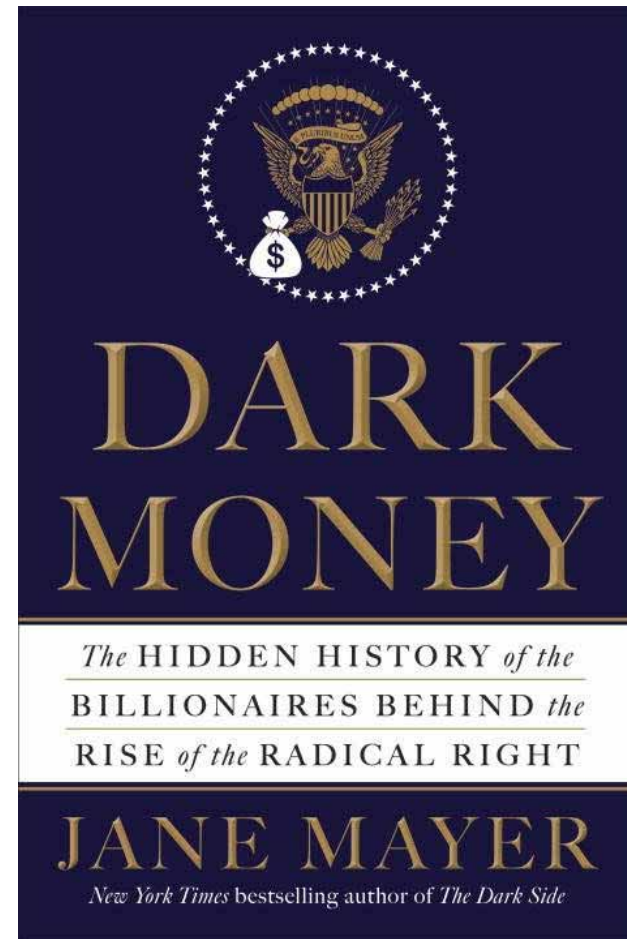
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The skirmishes on misuse or abuse of modelling are likely to get lost in the all out war on climate



Some excerpts of chapter 8, The Fossils, here:
http://www.andreasaltelli.eu/file/repository/Chapter_8sr.pdf

“While Obama's health-care bill was useful in riling up Tea Party protesters, his environmental and energy policies were the real target of many of the multimillionaires and billionaires in the Koch circle.”



NEWS DESK

THE HOUSE SCIENCE COMMITTEE'S ANTI-SCIENCE RAMPAGE

By Lawrence M. Krauss, SEPTEMBER 14, 2016



THE NEW YORKER

There has always been tension between scientists and Congress. But Lamar Smith, the chairman of the House Committee on Science, Space, and Technology, has escalated that tension into outright war.

The Next Genocide

By TIMOTHY SNYDER SEPT. 12, 2015

“New Haven — BEFORE he fired the shot, the Einsatzgruppe commander lifted the Jewish child in the air and said, “You must die so that we can live.” As the killing proceeded, other Germans rationalized the murder of Jewish children in the same way: them or us.”

The New York Times