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ocean colour cci

National Centre for Earth Observation
NATURAL ENVIRONMENT RESEARCH COUNCIL

Satellite products for the Southern Ocean from the Ocean Colour Climate Change Initiati

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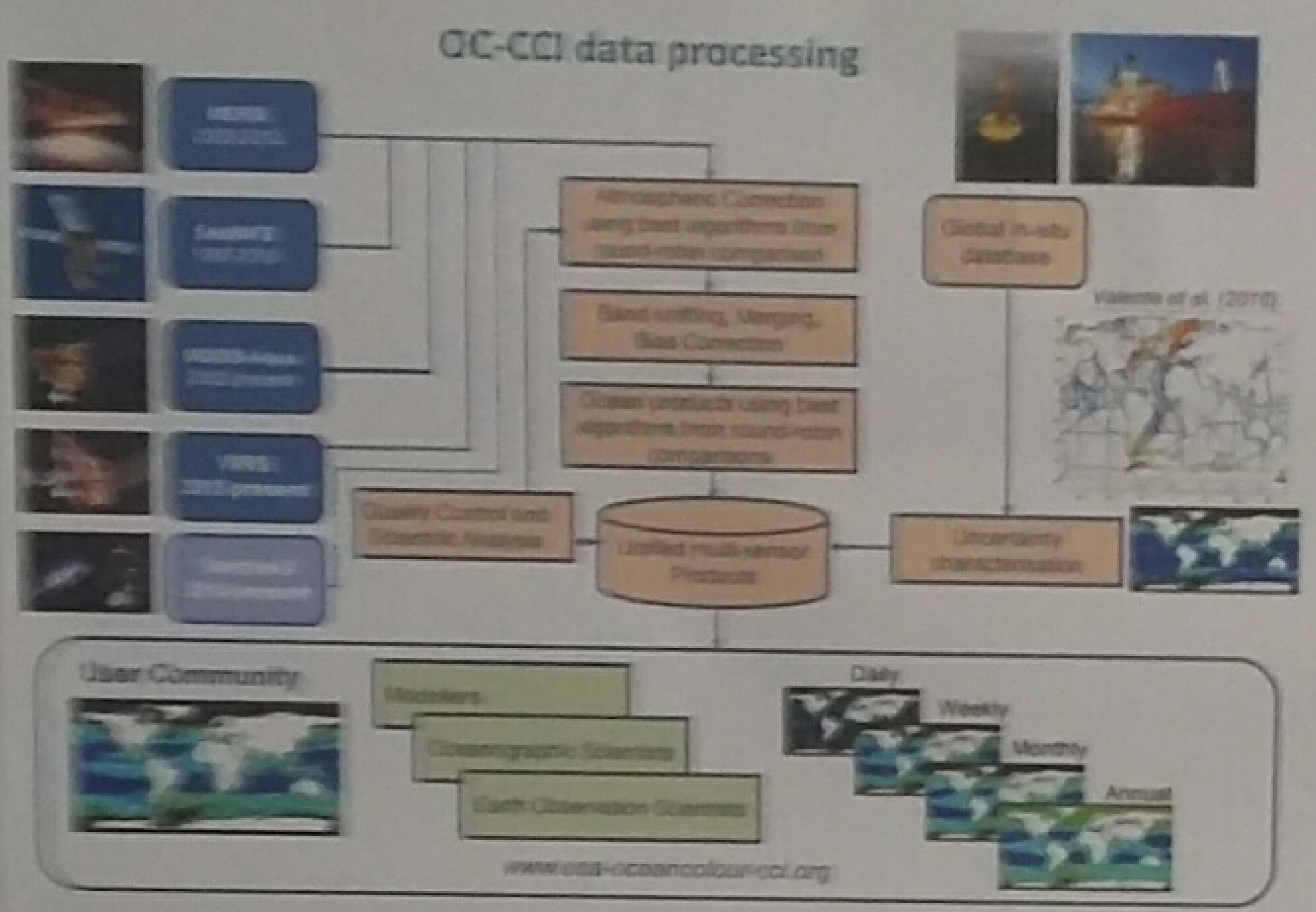
Summary

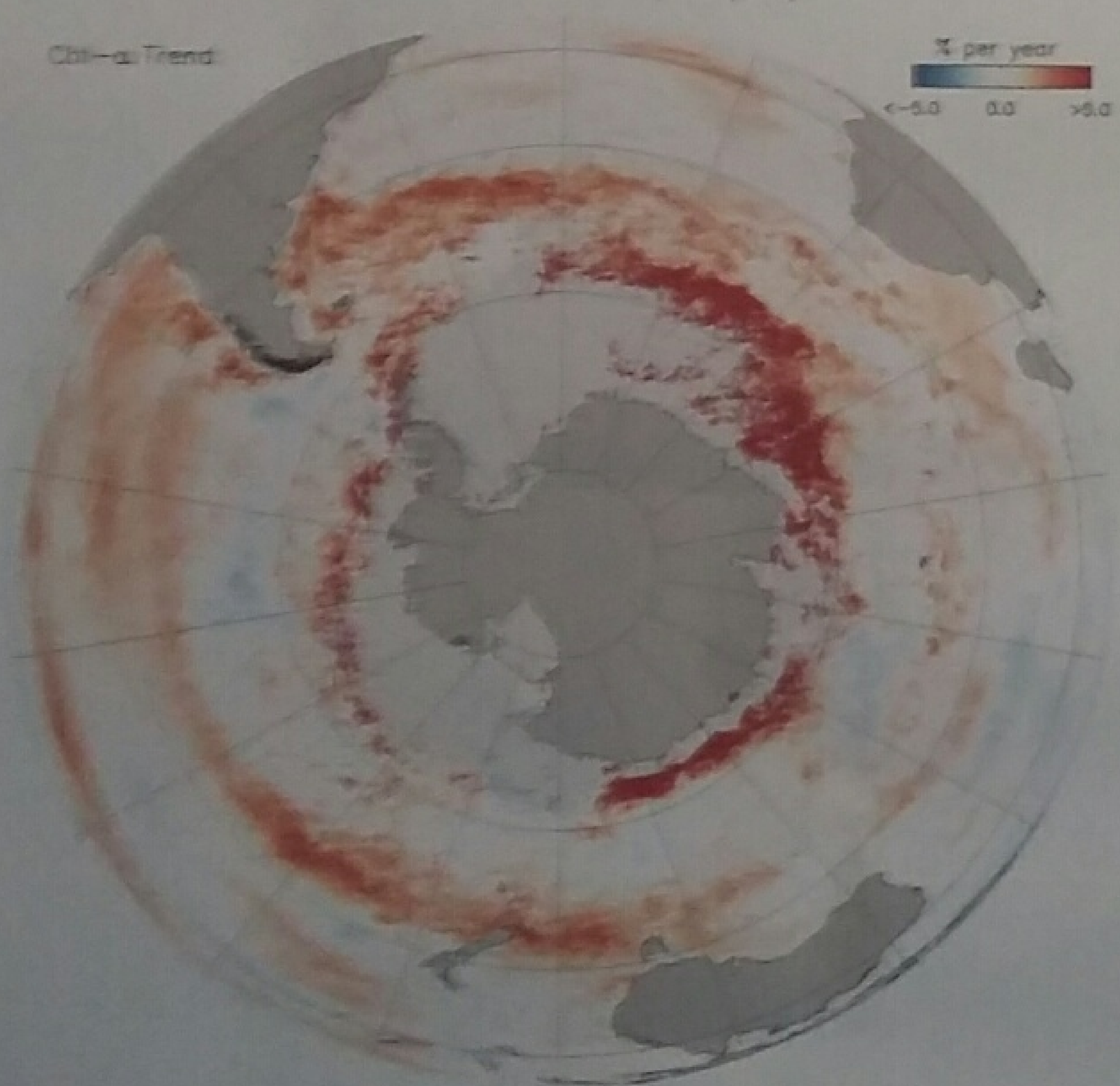
The Ocean Colour Climate Change Initiative (OC-CCI) forms part of a broader range of climate initiatives funded by European Space Agency (ESA) with the goal to realise the full potential of long-term global Earth Observation archives that ESA together with its member states have established over the past three decades. A key aim of OC-CCI is to produce a merged, stable, error-characterised, climate-quality ocean-colour data record, that can be used in climate studies and meet the needs of international climate research community. Here we provide a brief over-view of the OC-CCI processing model, demonstrate some key products (total chlorophyll-a concentration (Chl-a), Particulate Organic Carbon, and fraction of Chl-a by diatoms) that can be produced from OC-CCI data using regionally-tuned Southern Ocean algorithms, and present trends in Chl-a in the Southern Ocean over the period September 1997 to December 2016. We envisage these OC-CCI products will be useful in RoSES studies.

OC-CCI data processing model (v3.1)



Trends in Southern Ocean Chl–a from OC-CCI September 1997 to December 2016

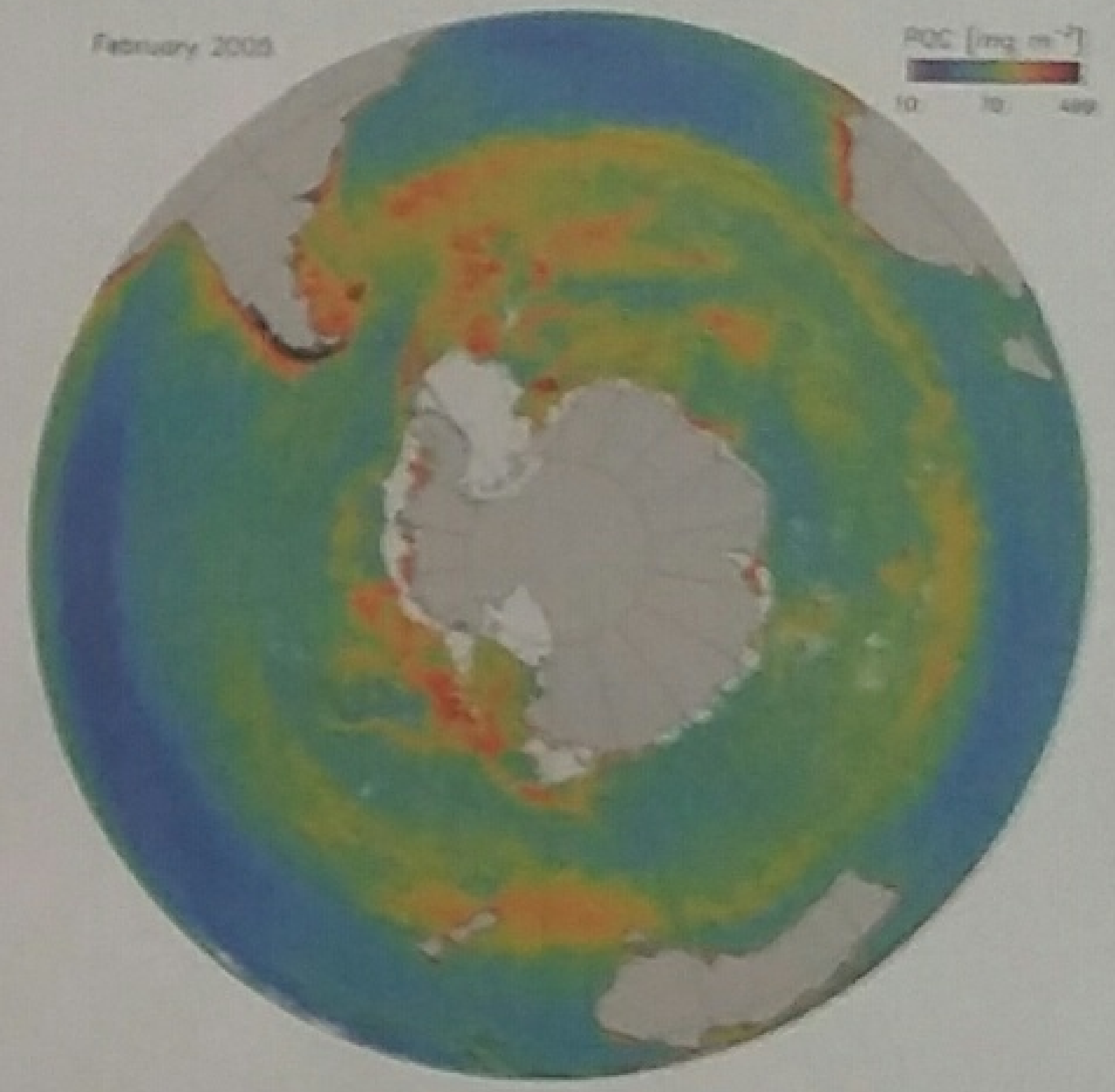
von Schuckmann et al. (Accepted)



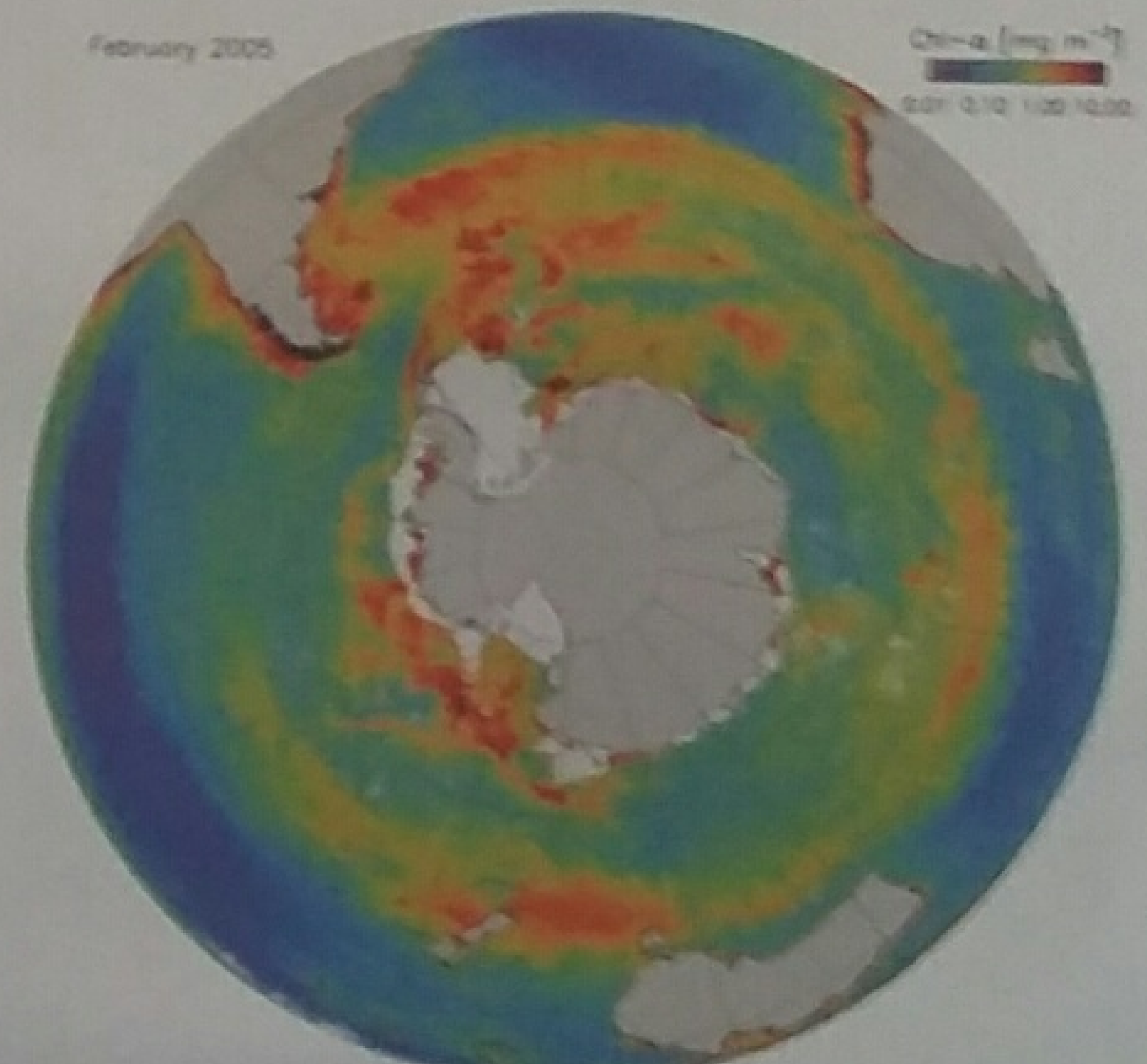
Trend map produced using the standard OC-CCI Chl-a product following the methods described in Mélin et al. (2017). Only significant trends are shown ($p<0.05$).

Sample OC-CCI products for the Southern Ocean using regional algorithms

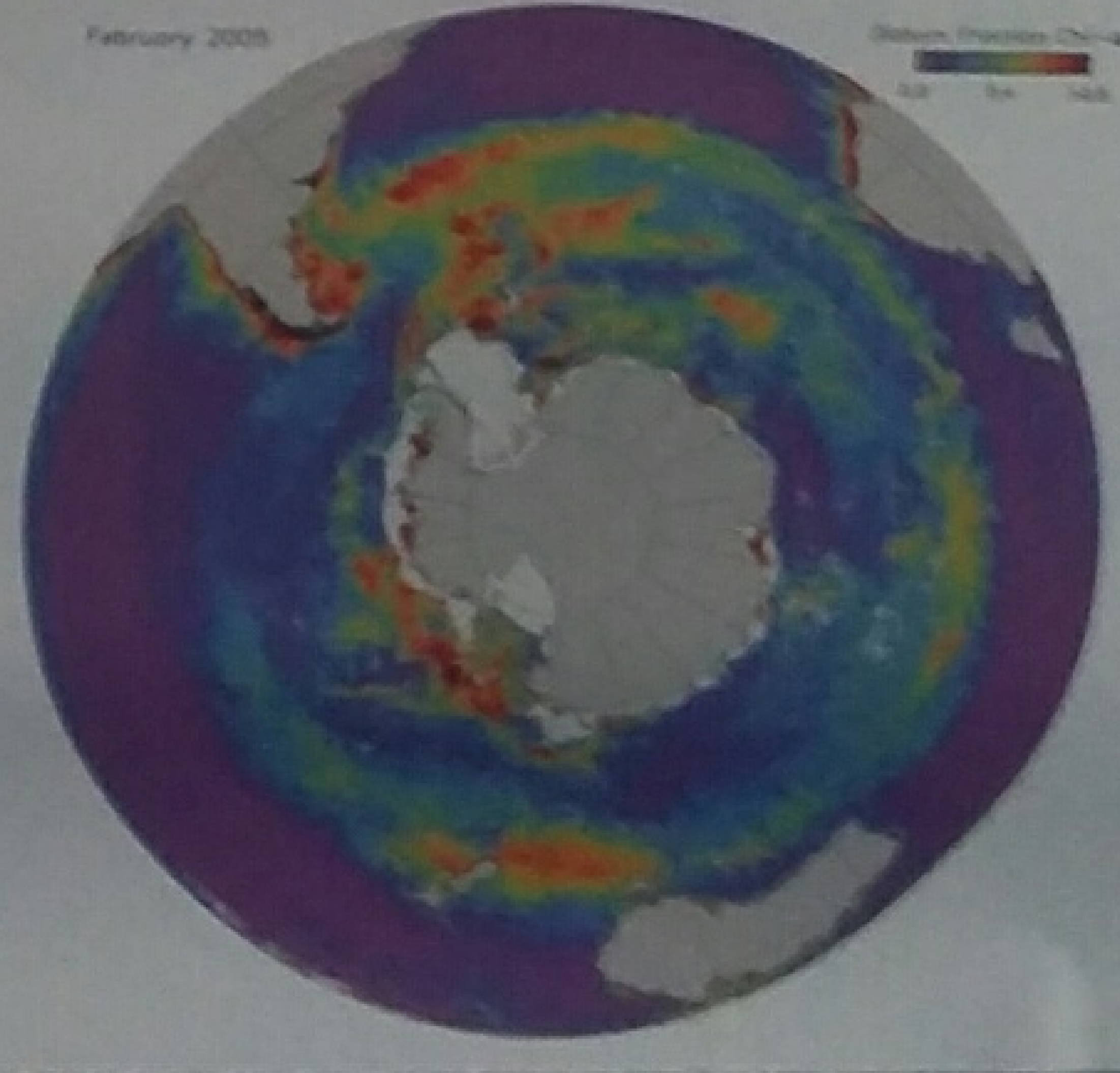
Allison et al. (2010)



Johnson et al. (2010)



Soppa et al. (2014)



References

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