

Wrap-up and Conclusions

Antonio S. Cofiño
2020 CF Workshop
9-11 June 2020



is-enes
INFRASTRUCTURE FOR THE EUROPEAN NETWORK
FOR EARTH SYSTEM MODELLING



The Venue: ~~Santander~~, ~~Spain~~ Thanks COVID-19!

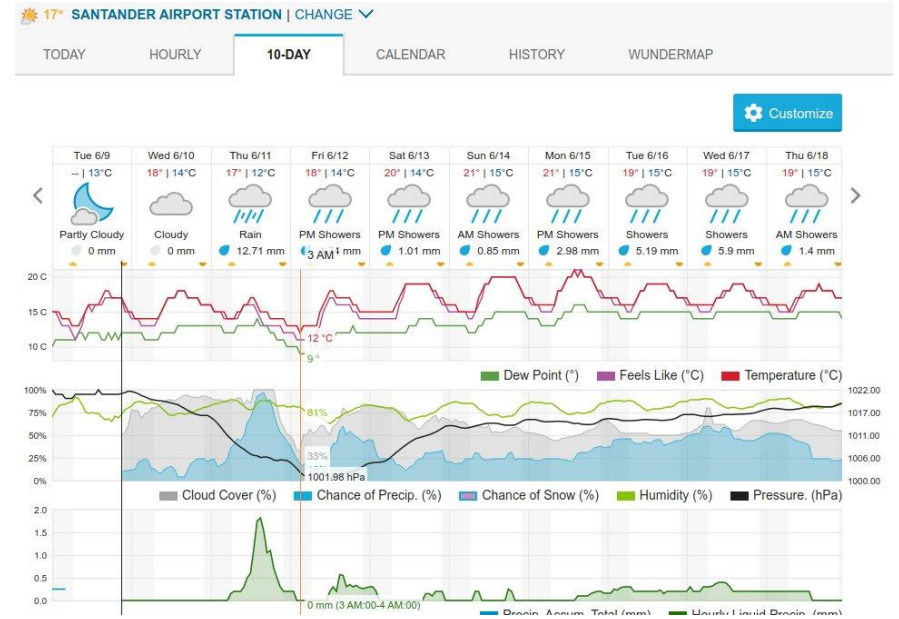


The Venue: ~~Santander, Spain~~ Thanks COVID-19!

The weather was not that good.

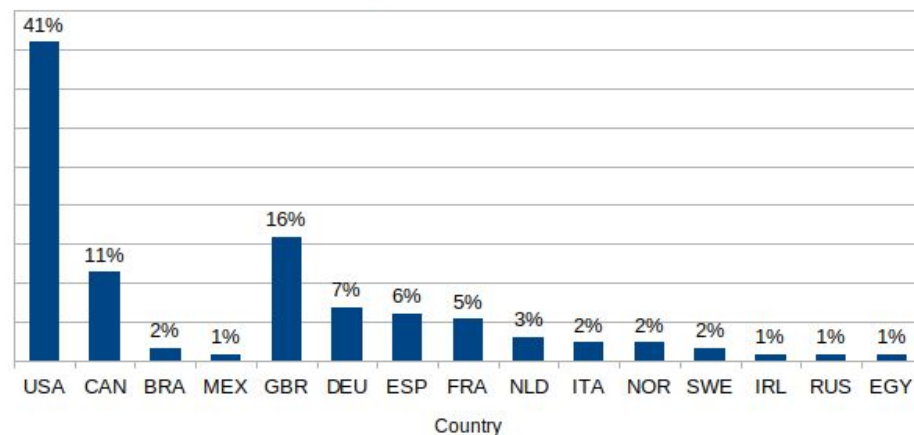
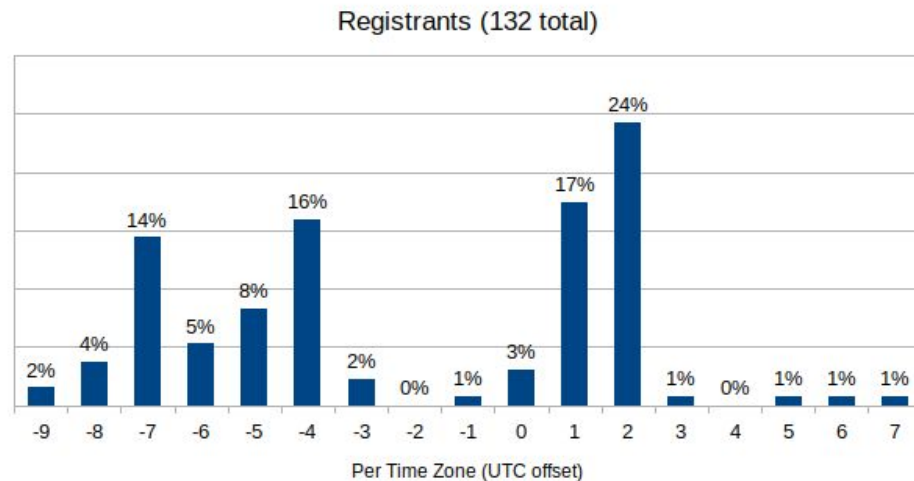


source: [@eltomavistas](#) by [Eva Miguélez](#)



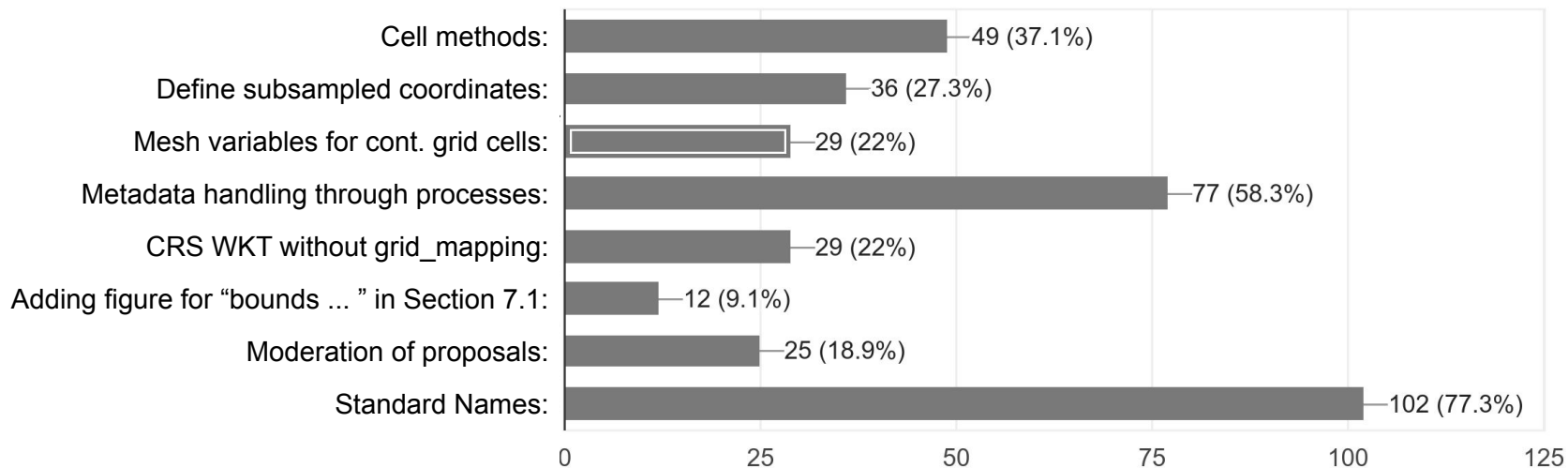
The good: Registration

- 132 Registrants
- 15 Time Zones
 - 3-5 possible “out-liars”
- 15 Countries
 - 71 reg. from North America
 - 59 reg. from Europe



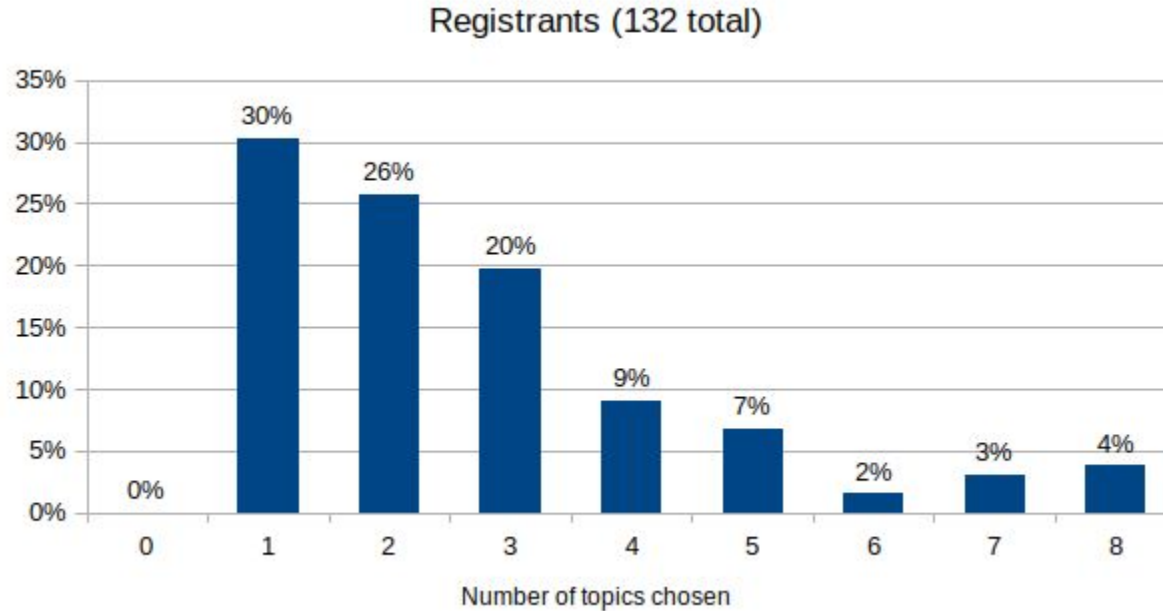
Topic interest

132 registrants with multiple options



Topic interest

Number of topics chosen by registry:



Participation

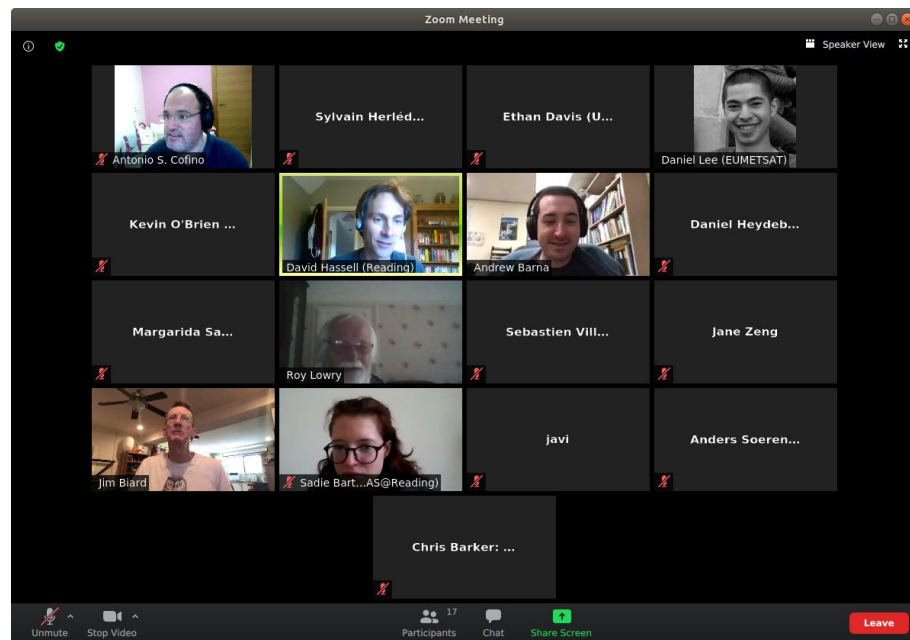
- **65-90 participants in plenary sessions**
 - Thanks to EUMETSAT for providing virtual Rooms
 - Virtual meeting preparation it's a technical challenge
 - Thanks to D.Lee for setting-up
- Per topic:
 - Cell methods: **21 participants**
 - Define subsampled coordinates: **10 participants**
 - Mesh variables for cont. grid cells: **Cancelled**
 - Metadata handling through processes: **32 participants**
 - CRS WKT without grid_mapping: **4 participants**
 - Adding figure for “bounds ... ” in Section 7.1: **6 participants**
 - Moderation of proposals: **6 participants**
 - Standard Names: **37 participants**



Participation

The Virtual Social Hour:

- Not too much success,
 - but ongoing request to Zoom for providing “Beer/Wine/WEYLTD” feature.



Wrap-up and conclusions

CF principles:

- Data should be self-describing: no external info needed to interpret it
- Driven by use-cases
- Practicable for both data-writers and data-readers
- Metadata easily parsed by humans as well as computer programs
- Minimise redundancy and any other possibilities for silly mistakes

Wrap-up and conclusions

CF Governance principle: CF it's a community effort

- CF Community: who use and contribute to CF
 - Anyone can contribute by proposing changes and participating in discussions
- What is to be community driven?:
 - Recruit new community members increasing perception and reach
 - Learn how the community relates with CF, how the community uses CF.
 - Provide new and helpful resources to community and educate on topics
- Are we there? What is needed/missing?
 - More/Any training, tutorials, hands-on, tools

Wrap-up and conclusions

CF GovernCF conventions and standard name committee:

- One chair (K.Taylor), 2 secretaries (A.Pamment and D.Hassell) and 11 more members made up from active contributors.
- Moderate proposals, contribute and develop CF
- **CF Governance Panel**
 - 5 members: E.Davis (Chair, UCAR/Unidata, USA), J.Gregory (NCAS/UReading, UK) , B.Lawrence (NCAS, UK) , D.Lee (EUMETSAT, EU) and K.Taylor (PCMDI/LLNL, USA).
 - Representatives from significant contributors
 - Promote the CF usage and stewardship
 - Appoint the chair of CF Committee

ance principle: CF it's a community effort

Wrap-up and conclusions

Process to change CF Conventions:

- Anyone can propose changes or bring-up issues
 - Changes are discussed
 - Moderator summarize
 - Decision made by consensus
 - Change agreed:
 - 3 weeks without significant contribution
 - 3 contributors, and at least 2 committee members support
- Guidelines in [CONTRIBUTING.md](#) should help: more details at D.Lee presentation.

Wrap-up and conclusions

- Workflow migration to Github on Nov-2019
- Learn new GH tech and process: PR, commits, Markdown, AsciiDoc, ... overwhelming?
- The cf-metadata mail list it's no more in use.
- The Trac site, it's no more in use.
- Both (mail list and trac) are a invaluable source of knowledge that needs to be curated:
 - CF conversations since 2002 to 2019.
 - <http://mailman.cgd.ucar.edu/pipermail/cf-metadata/>
 - Trac site with valuable open issues:
 - What to do with them?
 - <https://cf-trac.llnl.gov/trac> (no-reliable)
- Some tidy-up on [CF web page](#) it's needed

[CF-metadata] test

Brian Eaton eaton@near.ucar.edu

Tue Mar 19 18:15:06 MST 2002

- Next message (by thread): [\[CF-metadata\] Re: CF NetCDF Conventions](#)
- Messages sorted by: [\[date\]](#) [\[thread\]](#) [\[subject\]](#) [\[author\]](#)

test

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CF Metadata

NetCDF Climate and Forecast Metadata Convention

Search

Login Preferences About Trac Help/Guide

View Tickets Roadmap Timeline Search Wiki

Custom Query (50 matches)

Filters

Status accepted assigned closed new reopened

And Or

Columns

Group results by Resolving Show under each result: Description Max items per page 100 Update

Ticket	Summary	Status	Owner	Type	Priority	Milestone
#195	Invalid "ld" values in CF Standard Name aliases	new	cf-standard-names@...	defect	low	Milestone
#24	Common Concept: vocabulary with mapping to CF attributes	new	cf-conventions@...	enhancement	medium	
#27	Use namespace tags to include other conventions in netcdf files without repeating them in CF	accepted	edavis	enhancement	medium	
#29	Common Concept: subtopic: CDI as constraint language	new	cf-conventions@...	enhancement	medium	
#38	Coordinate Systems checks for CF-1.1	new	cf-checker@...	task	medium	
#53	Incorrect error when missing_value and _Fillvalue are NaN	new	cf-checker@...	defect	medium	
#59	Conventions for radial RADAR and LIDAR data	new	cf-conventions@...	enhancement	medium	
#68	CF data model and reference implementation in Python	new	cf-conventions@...	enhancement	medium	
#73	Rename Appendix G as Appendix Z	accepted	davidhassel	defect	medium	
#78	CF aggregation rules	new	cf-conventions@...	enhancement	medium	
#79	Handling and formatting of vector quantities in CF	reopened	cf-conventions@...	enhancement	medium	
#82	Extend cell_methods attribute to document multi-step operations on a variable	new	cf-conventions@...	enhancement	medium	
#90	Collection of CF enhancements for interoperable applications	new	cf-conventions@...	enhancement	medium	
#91	review of standard_names for interoperability	new	cf-standard-names@...	task	medium	
#94	Proposal for a CF String Syntax (CFSS)	accepted	lowry	enhancement	medium	
#95	Development of CF 1.5 Data Model	new	cf-conventions@...	task	medium	
#96	Julian/Gregorian calendar name and constraints	new	cf-conventions@...	enhancement	medium	
#97	Multiple staggers in GRIDSPEC	new	cf-conventions@...	enhancement	medium	
#98	Clarify constraints on ancillary variable use	accepted	cf-conventions@...	defect	medium	
#101	Correct error in introductory text of Section 4.4 -- definition of 'year'	new	cf-conventions@...	defect	medium	
#107	CF Data Model 1.7	new	cf-conventions@...	task	medium	
#108	Defining a domain for a cell_method	new	cf-conventions@...	enhancement	medium	
#113	Review of CF feature types	assigned		enhancement	medium	
#115	add CF-SWEET updated mappings document, as appropriate	new	cf-standard-names@...	enhancement	medium	
#116	remove AMIP and PCMDI codes	new	cf-standard-names@...	task	medium	
#117	add example to 5.7 for multi-time dimension data	new	cf-conventions@...	enhancement	medium	
#142	Coordinate Type: Ensemble	new	cf-conventions@...	enhancement	medium	
#151	Clarification of use of standard region names in "region" variables.	new	cf-conventions@...	enhancement	medium	
#152	Time mean over area fractions which vary with time	new	cf-conventions@...	enhancement	medium	
#153	Requirements related to specific standard names	new	cf-conventions@...	enhancement	medium	



Wrap-up and conclusions

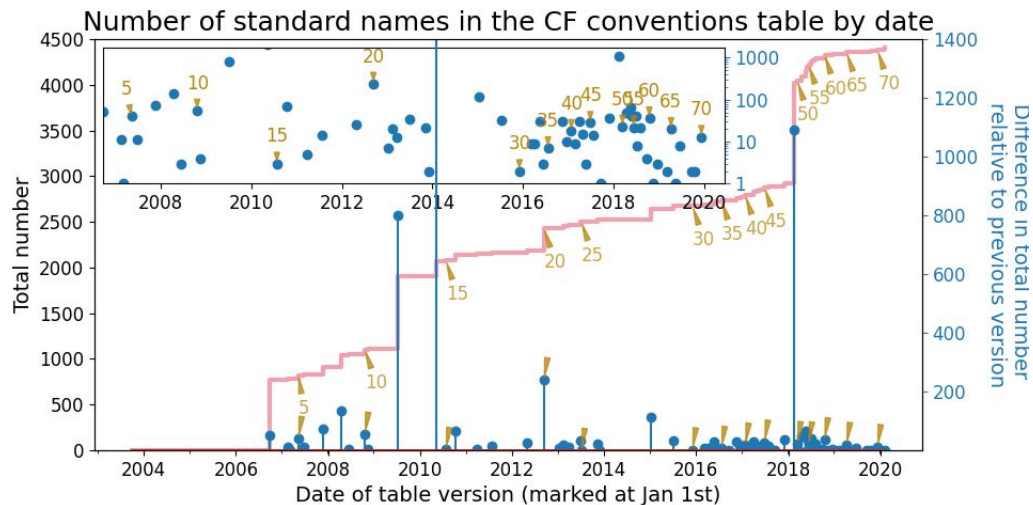
CF Standard Names

- What is and how the standard name process works
- Any member of community may propose and comment on proposals.
- Fast track for existing similar terms
- The CF standard names committees vote in case no consensus
- The rules: http://cfconventions.org/standard_name_rules.html

Wrap-up and conclusions

CF Standard Names

- The CF standard name grows:
 - <https://github.com/cf-convention/cf-convention.github.io/issues/110>



by S.L.Bartholomew

Wrap-up and conclusions

CF Standard Names

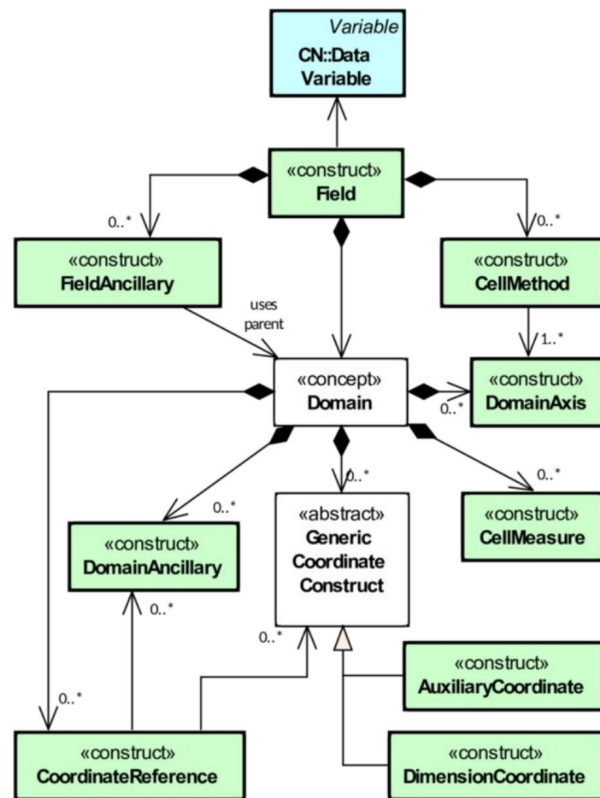
- Ontologies: towards a formal representation of CF standard names and its publication:
 - <https://github.com/cf-convention/discuss/issues/51>
 - <https://mmisw.org/ont/cf/parameter>
 - Parsing CF standard names, J.Gregory (2010):
 - http://www.met.rdg.ac.uk/~jonathan/CF_metadata/14.1/
 - Grammar, Uses, Derivation, Direction, Lexicon, Patterns, Standard names and analysis.



Wrap-up and conclusions

CF Roadmap

- Long period with no releases:
 - CF-1.6 (2012) to CF-1.7 (2017).
 - Very active period but not outcome release.
 - Dedicated human resources it's a key
- CF-1.8 in beginning of 2020
 - Netcdf4 Group and String type support, no more netcdf4 only classic data model
- CF-1.9 before 2021 CF Workshop:
 - Appendix for the CF Data model: A formal representation for the CF Conventions
- Proposal for 6 months release cycle



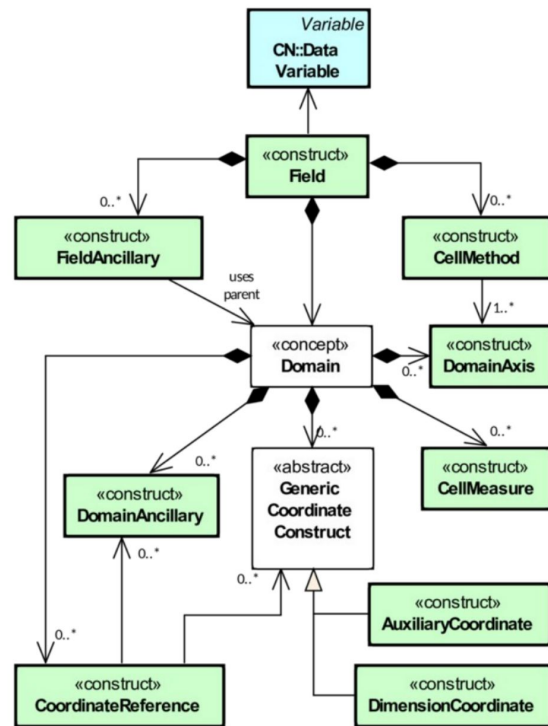
Wrap-up and conclusions

CF software

- CF checkers:
 - CEDA/NCAS CF-Checker
 - [CF Conformance Requirements and Recommendations document](#)
 - <https://github.com/cedadev/cf-checker>
 - IOOS Compliance Checker
 - Plugin based, CF checks, ACDD, NCEI templates
 - <https://github.com/ioos/compliance-checker>
- cfdm - python package
 - implementation of the CF data model
 - <https://ncas-cms.github.io/cfdm/>

Call for contributing to CF Software page:

- <http://cfconventions.org/software.html>
- If your software tool is not listed, please submit issue to CF Discuss repo:
 - <https://github.com/cf-convention/discuss/issues>



Wrap-up and conclusions

- What do I have miss?
- What are you missing from the workshop?
 - Any important topic discussion?,
 - Some general discussion?
- What organization issues have you find?
- How can we improve forthcoming CF workshops?

**Please comment now! Or write down on the google-doc
Your feedback, as community member, is important!!**



Wrap-up and conclusions

- Thanks to presenters.
- Thanks to breakout topic sessions chair and reporters.
- Thanks to 2020 CF workshop committee:
 - Jim Biard, Dave Blodgett, Kevin O'Brien, Antonio Cofiño, Ethan Davis, David Hassell, Jessica Hausman, Aleksandar Jelenak, Daniel Lee, Jonathan Yu
 - It has been a challenge to organize this virtual workshop
 - Blame to workshop committee for any issue:
 - CF Governance Panel as subsidiary ;)

**Thank you, as community, for participating and contributing to CF.
Plan the next 2021 CF Workshop**