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IN KRAKOW

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POLFAR data polishing: The Stephan's Quintet and LOFAR

Science at Low Frequencies III, Pasadena, CA, 08.12.2016

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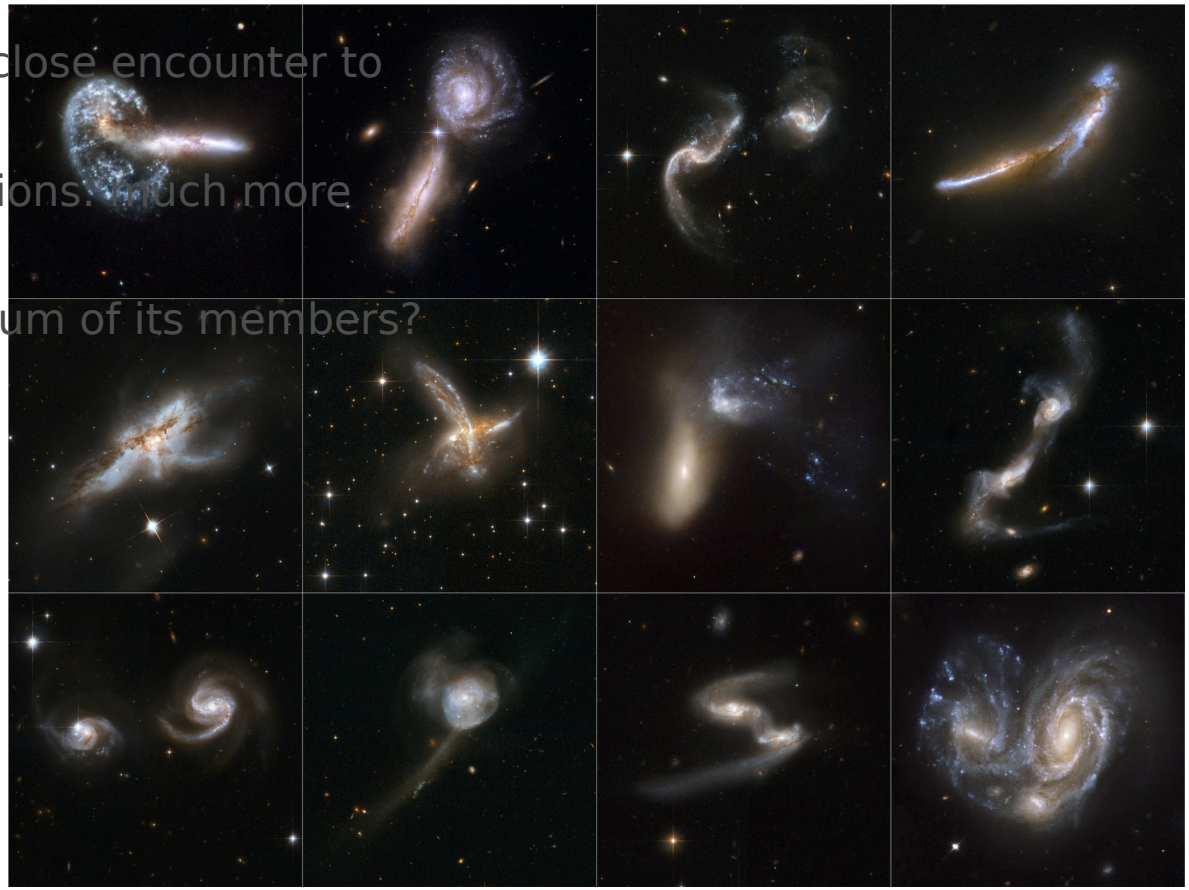
POLFAR
A Family Company
Une Entreprise Familiale
LOFAR HBA
SINCE/DEPUIS 1906
Stephan's Quintet
PREMIUM POLISH
CIRAGE DE PREMIÈRE QUALITÉ
BLACK/NOIR
32g (1 1/8 OZ.)
0 31600 10311 2

From so simple beginning…

- Multiple results of a galaxy collision
- Toomre sequence: from a close encounter to nuclear coalescense
- Radio continuum observations: much more sensitive tool
- Is a galaxy system just a sum of its members?



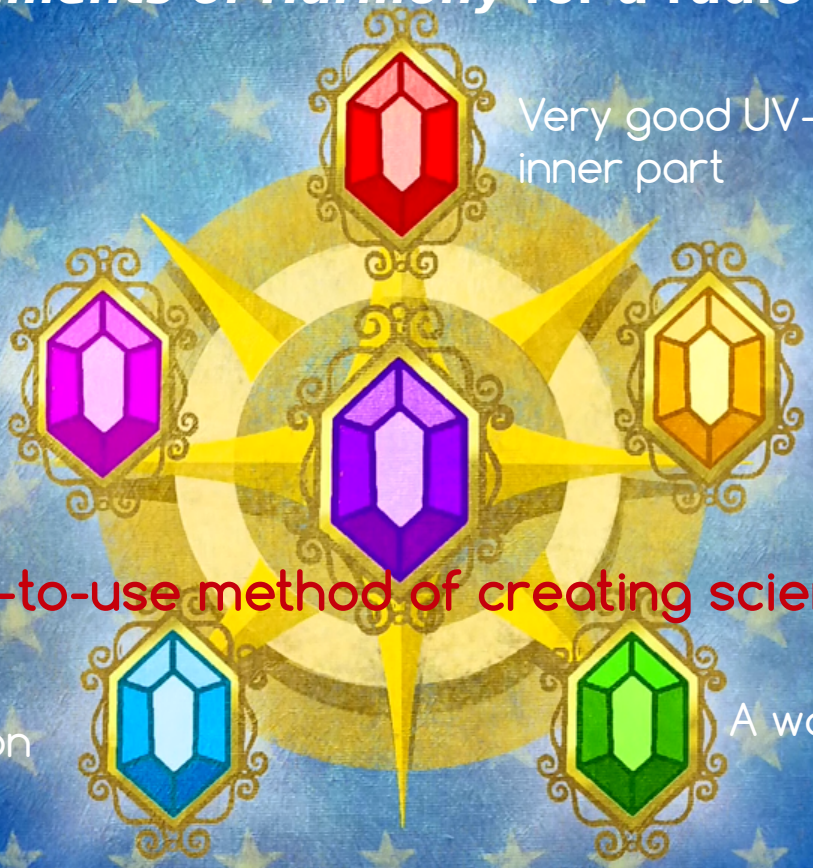
1.1. Why galaxy groups?

- What a galaxy groups is NOT?
- Why bother? Hickson’s study
- What can we see in galaxy groups?
- Why there are no studies of the magnetic field?

So we are basically dealing with this:

But we know it could look like this:

What are the *Elements of Harmony* for a radio astronomer?



Very good UV-plane coverage in its inner part

Large number of telescope elements, located over a large area

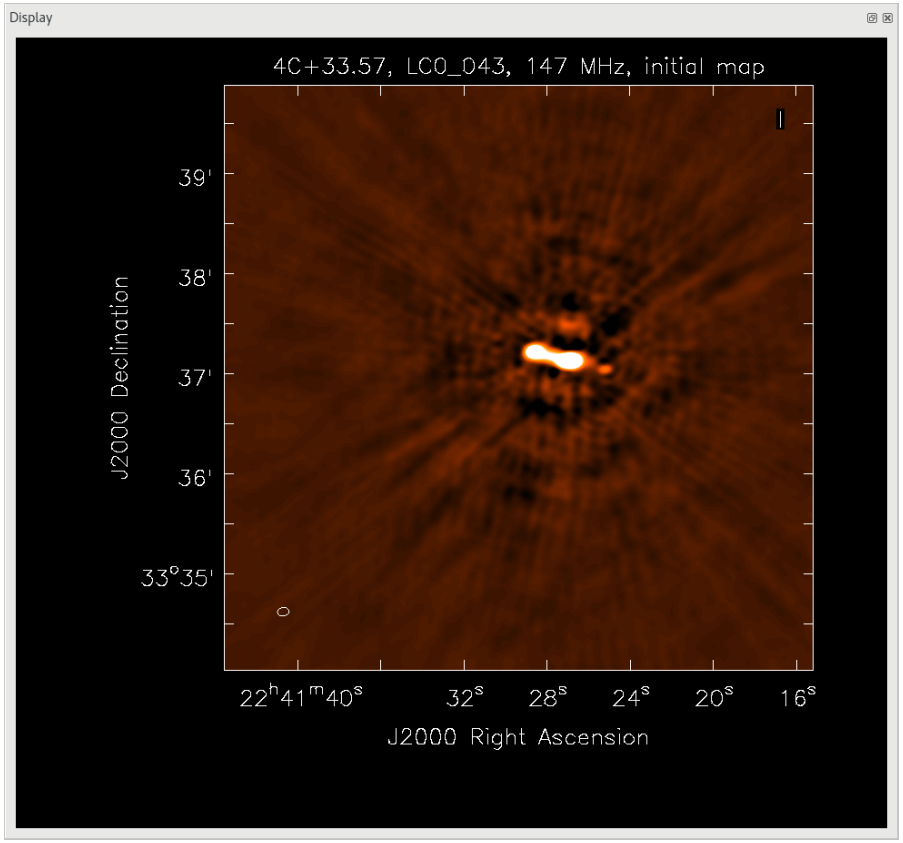
Large bandwidth

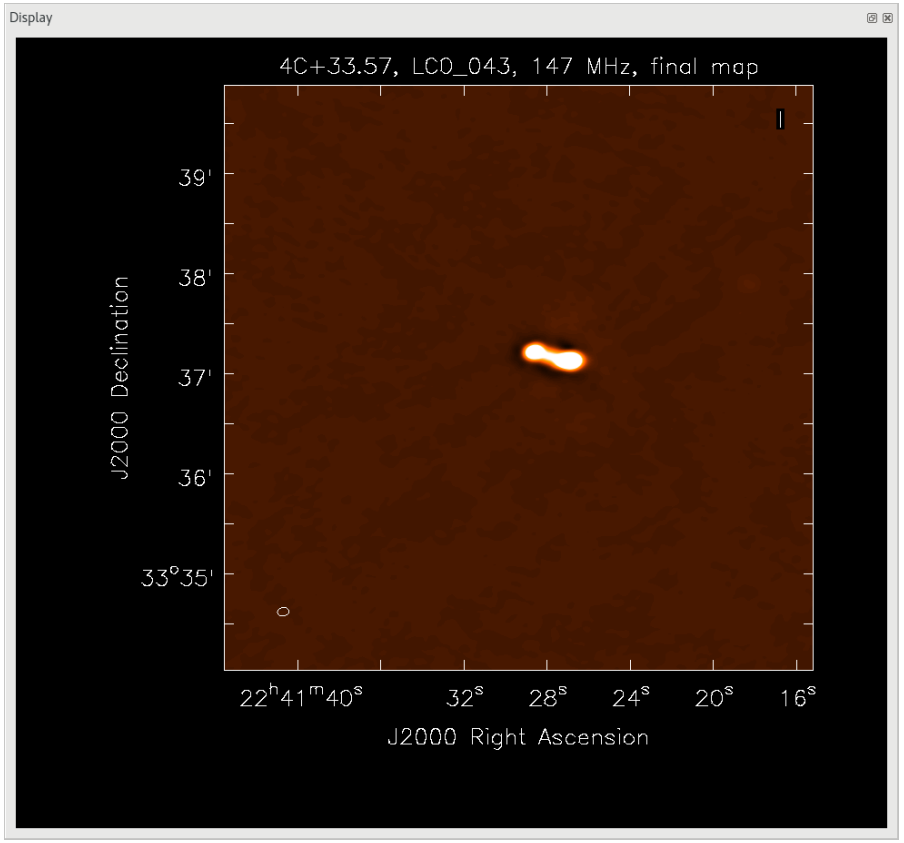
A robust and easy-to-use method of creating scientific quality images

Ease-of-use and ease-of-construction

A way to get rid of the RFI

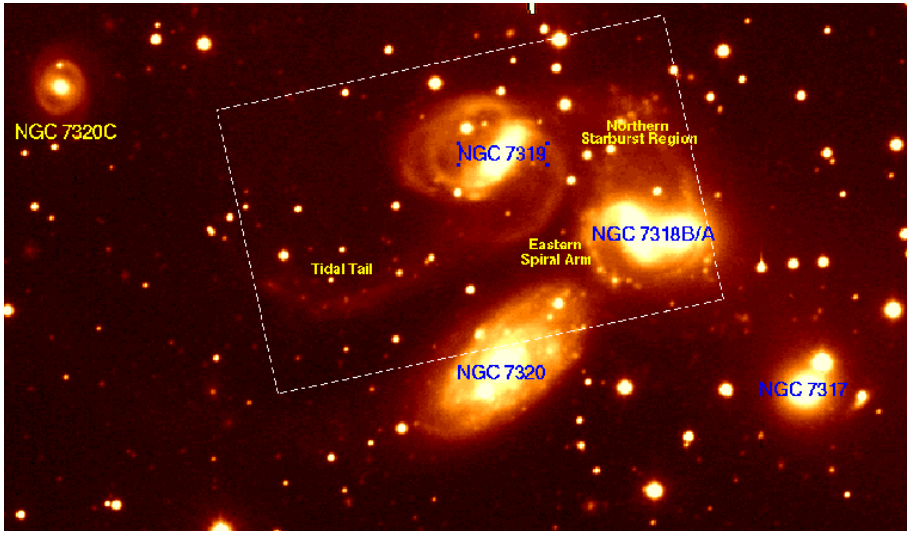
What can we expect to get?

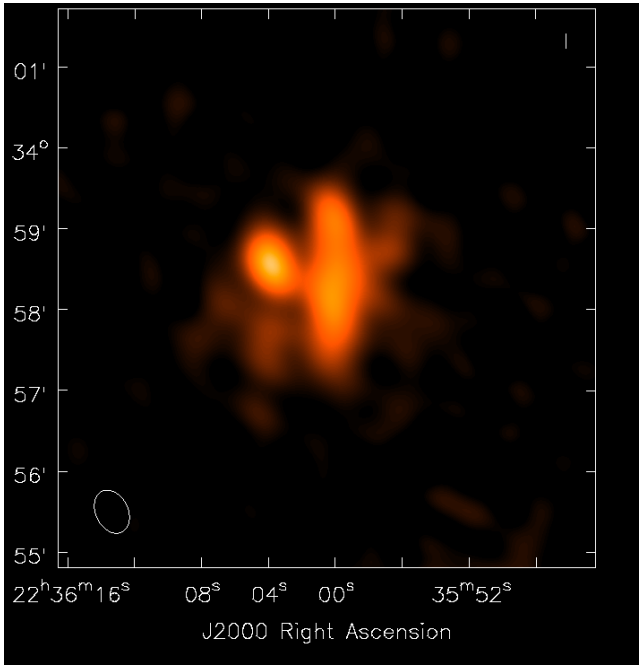




How far can we go with the SQ?

- Good correspondence with the high frequency data
- Extent still to be determined, but likely to be larger
- TDG invisible – absorption?
- Shock easily visible!
- Sensible spectral index (~0.9)





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