

ALMA workshop 解析結果  
2016.1.01532.S  
uid://A002/Xbfb22d/X53da

Satoshi Nozawa

Kenichi Otsuji

ALMA workshop@Mitaka

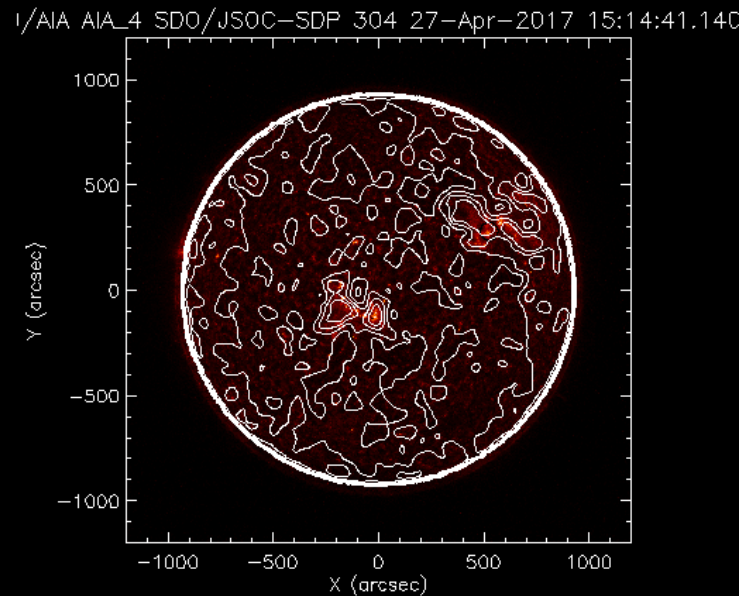
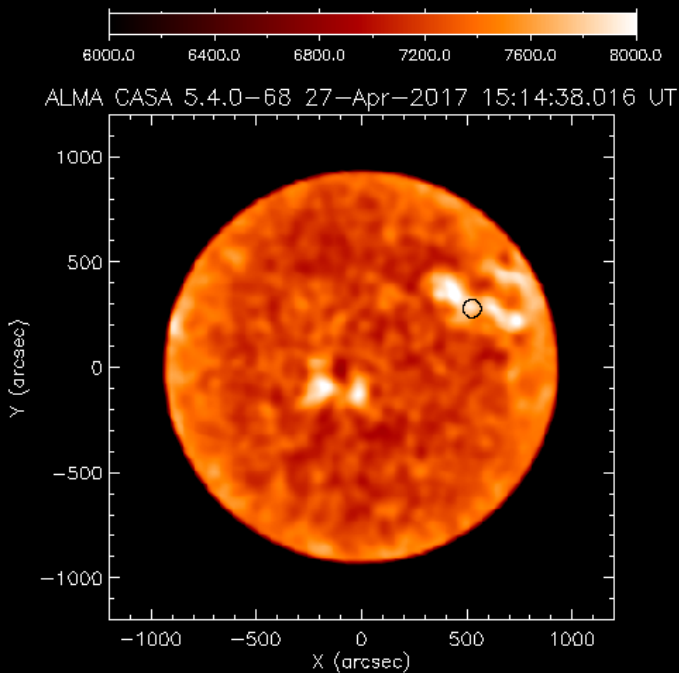
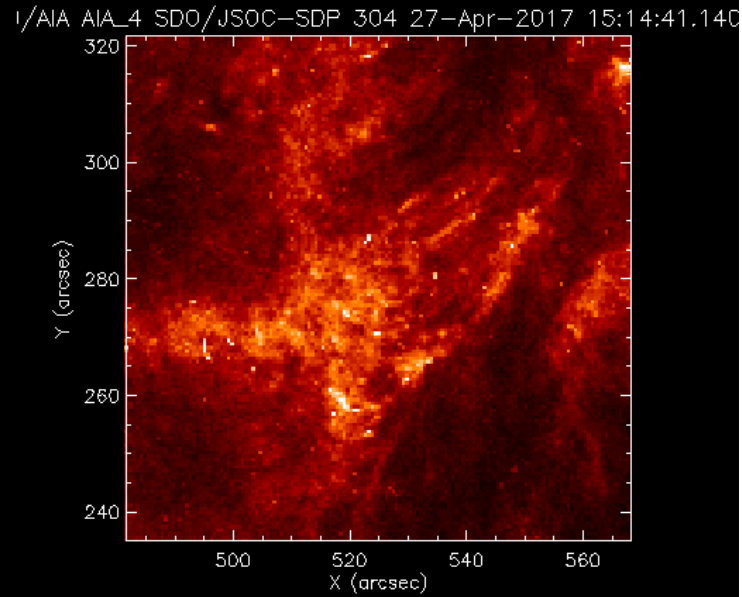
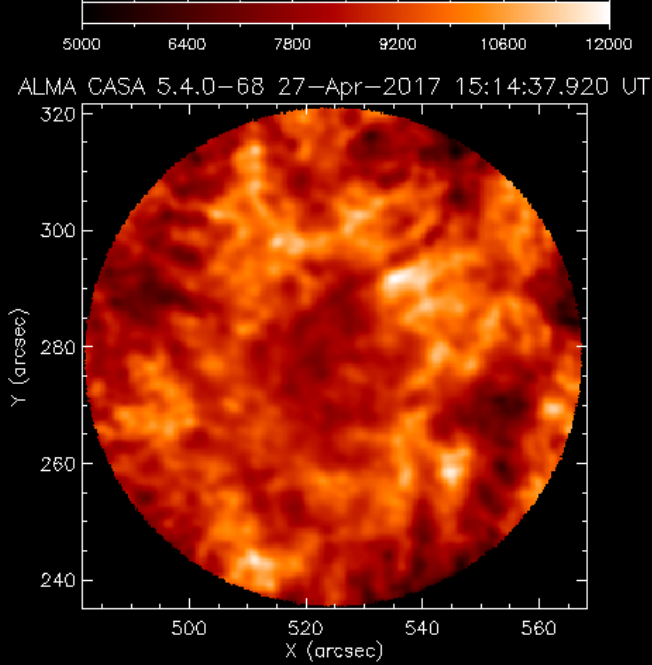
2019/01/14 – 2019/01/17

# data

- ID 2016.1.01532.S
- PI Bin Chen
- Title Unveiling the Nature of Small-Scale Energy Release Events in the Low Solar Atmosphere
- SP or MOSAIC SP
- Target AR
- Band 3
- Archive URL [https://almascience.nao.ac.jp/aq/?project\\_code=2016.1.01532.S](https://almascience.nao.ac.jp/aq/?project_code=2016.1.01532.S)
- EB ID uid://A002/Xbfb22d/X53da
- Observing Period (Science Scans Only) 2017-04-27 14:19:44 - 15:31:25
- Reference Time 2017-04-27 14:24:53
- Heliocentric Coordinate of FoV Center at Ref. Time (XCEN, YCEN) 518.4532, 279.0280
- Combine with TP data Combined
- IRIS URL
  - [http://www.lmsal.com/hek/hcr?cmd=view-event&event-id=ivo%3A%2F%2Fsot.lmsal.com%2FVOEvent%23VOEvent\\_IRIS\\_20170427\\_135941\\_3620006632\\_2017-04-27T13%3A59%3A412017-04-27T13%3A59%3A41.xml](http://www.lmsal.com/hek/hcr?cmd=view-event&event-id=ivo%3A%2F%2Fsot.lmsal.com%2FVOEvent%23VOEvent_IRIS_20170427_135941_3620006632_2017-04-27T13%3A59%3A412017-04-27T13%3A59%3A41.xml)
- Hinode QL URL
  - [https://hinode.nao.ac.jp/en/for-researchers/qlmovies/#/movie\\_sirius/2017/04/27/hsc\\_ql20170427.html](https://hinode.nao.ac.jp/en/for-researchers/qlmovies/#/movie_sirius/2017/04/27/hsc_ql20170427.html)
- Comment Reference time is changed and re-calculated the coordinate using "fixplanets"

# ALMA vs. AIA304

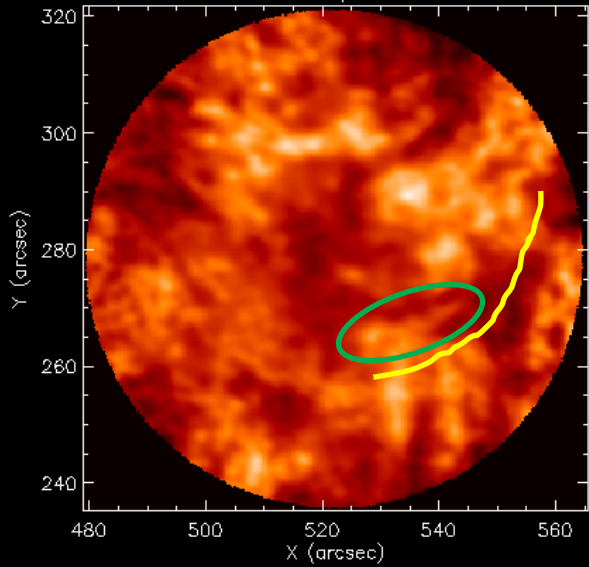
背景光度の分布は一致していない。  
Single dishの図と  
AIA304は一致する。



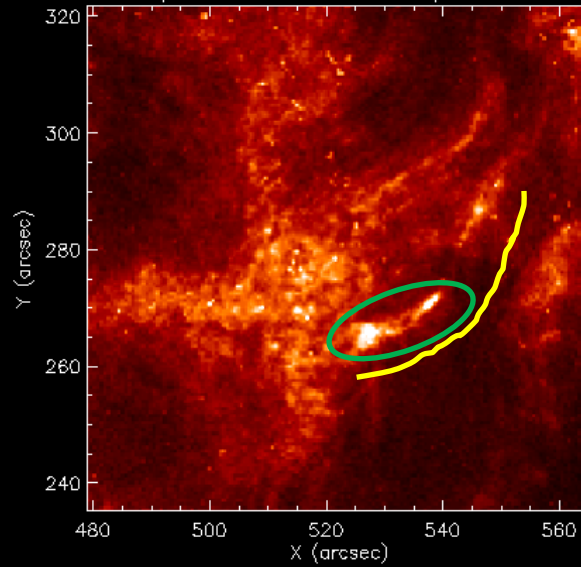
# ALMA vs. AIA1700

AIA304でjet-like  
brightningが見られる。  
ALMAでも同タイミン  
グで増光あり。

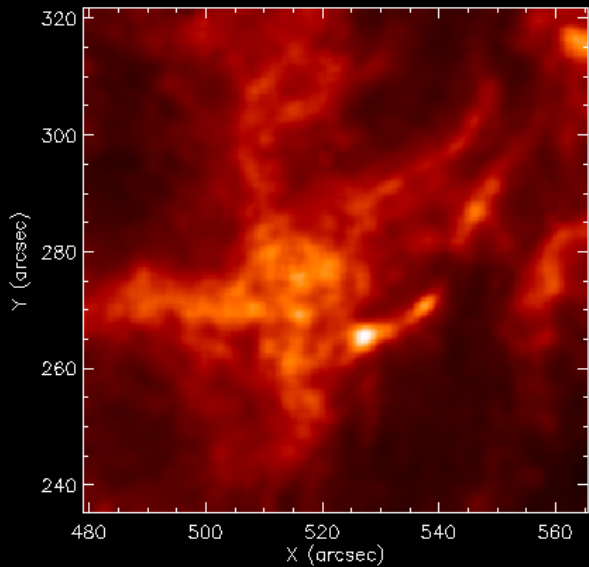
ALMA CASA 5.4.0-68 27-Apr-2017 14:53:30.048 UT



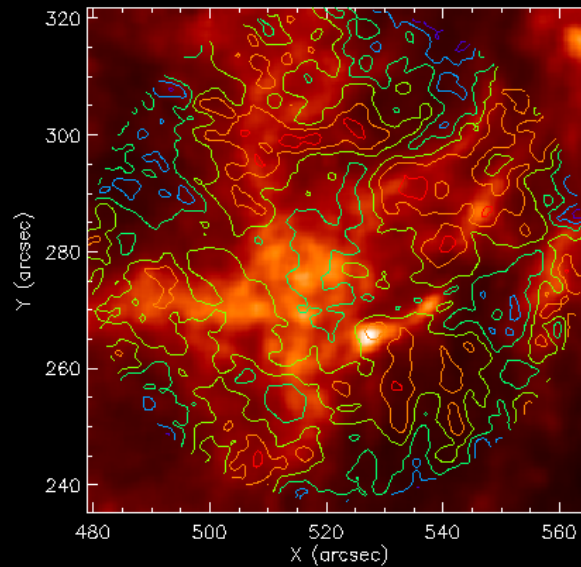
I/AIA AIA\_4 SDO/JSOC-SDP 304 27-Apr-2017 14:53:29.140



3" smoothed AIA

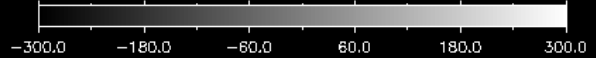
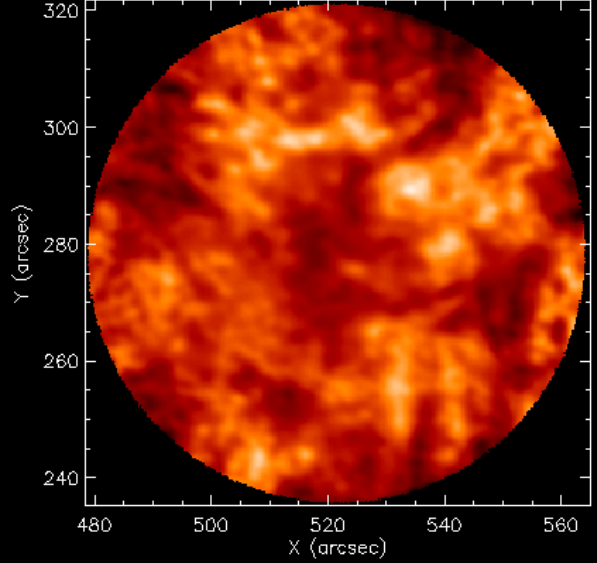


3" smoothed AIA with ALMA contour

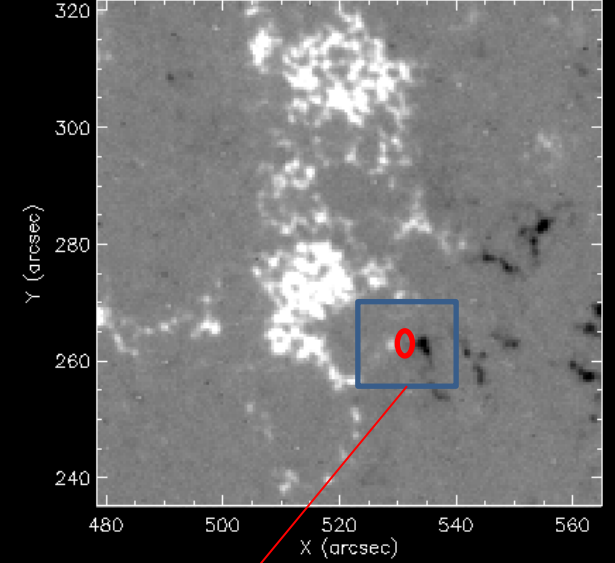




ALMA CASA 5.4.0-68 27-Apr-2017 14:53:30.048 UT

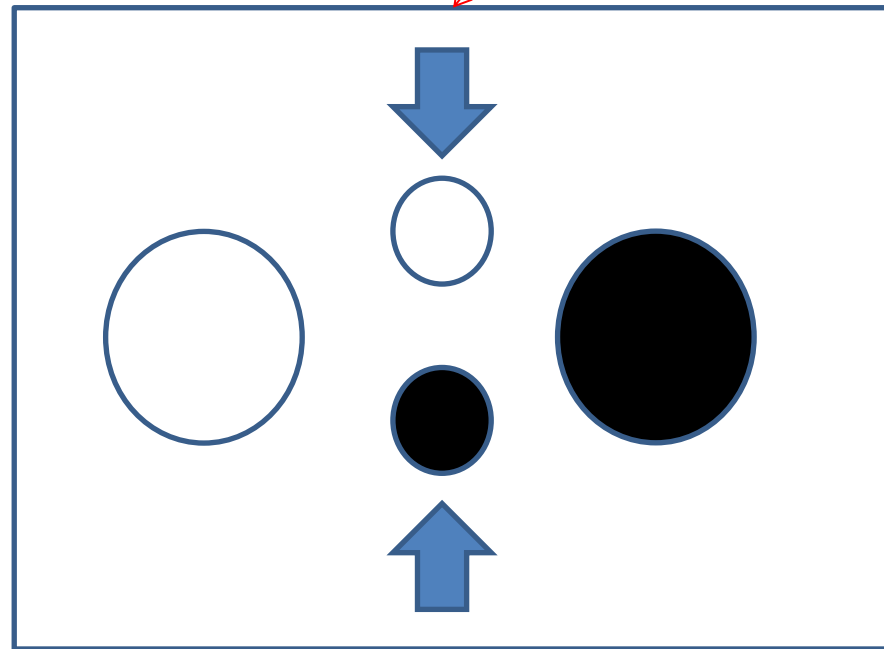


HMI 27-Apr-2017 14:53:48.800



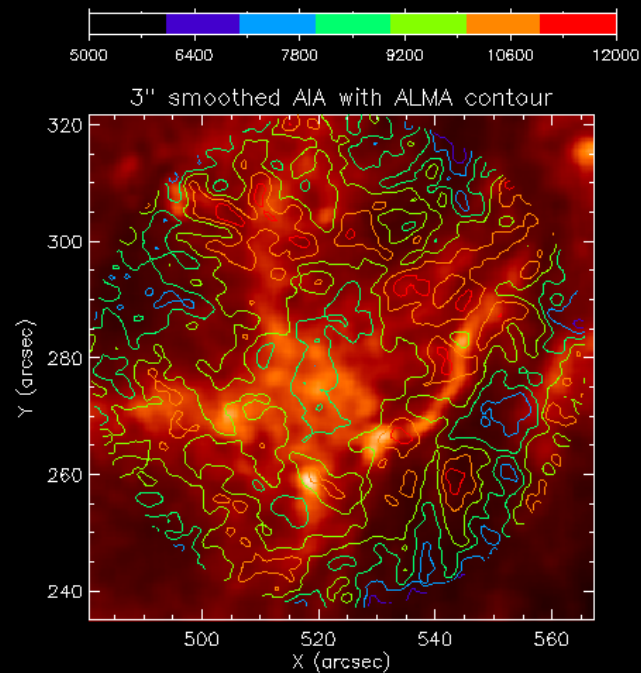
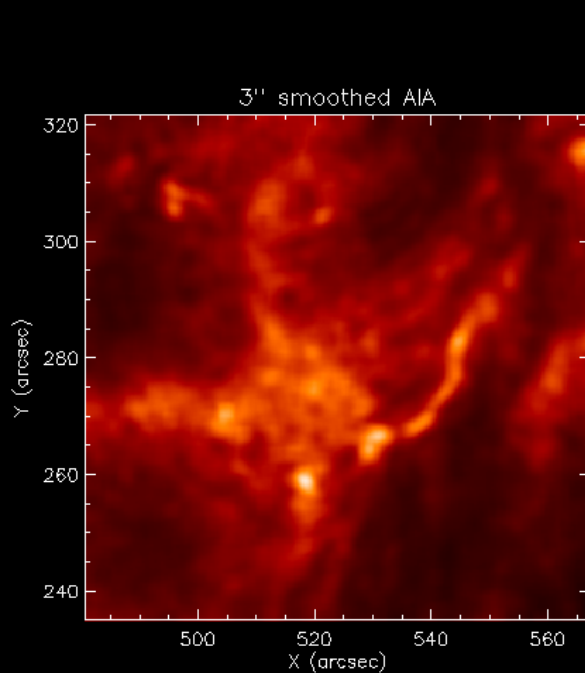
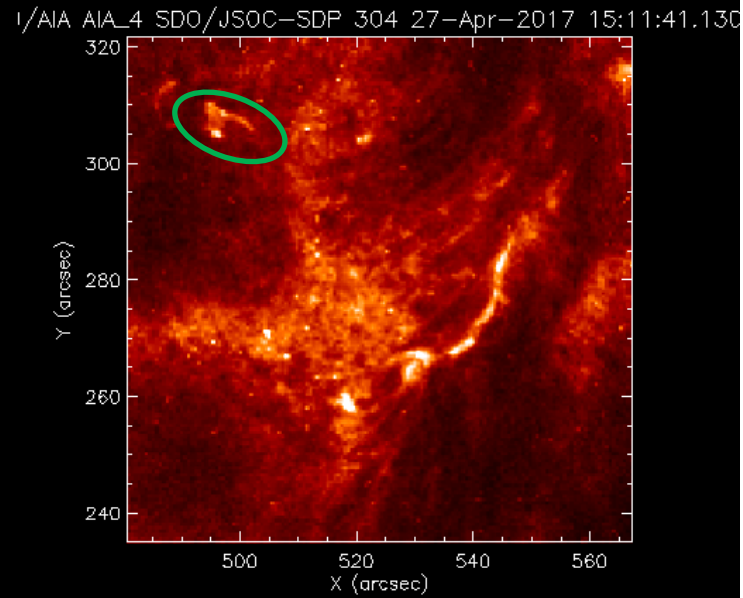
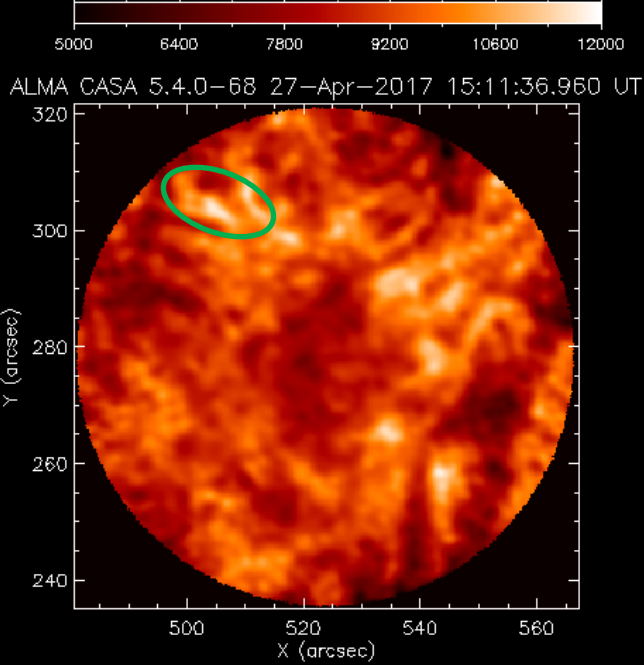
# ALMA vs. HMI

Jetの原因は○内で発生した磁場キャンセレーション



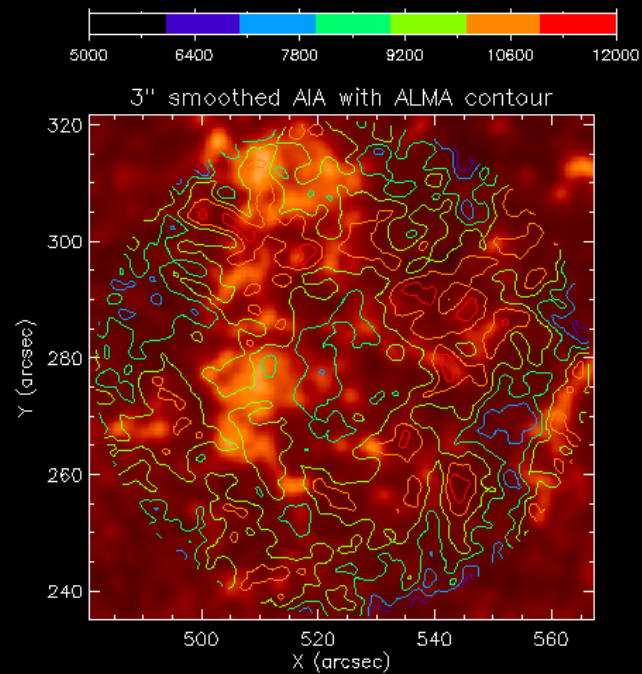
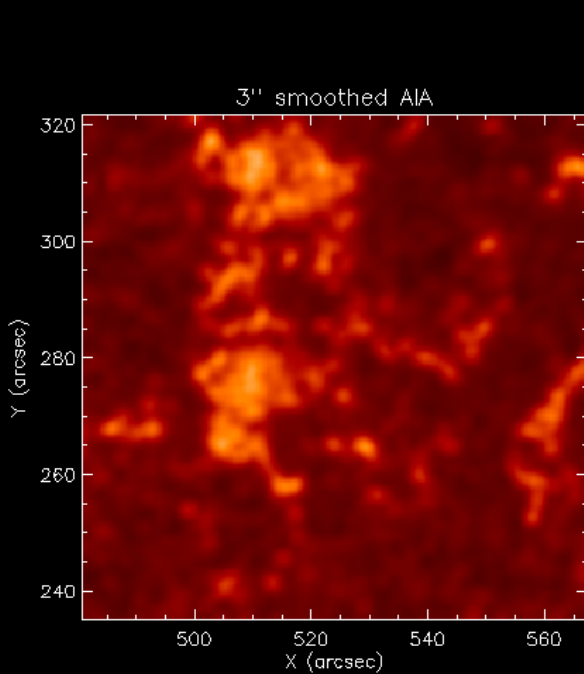
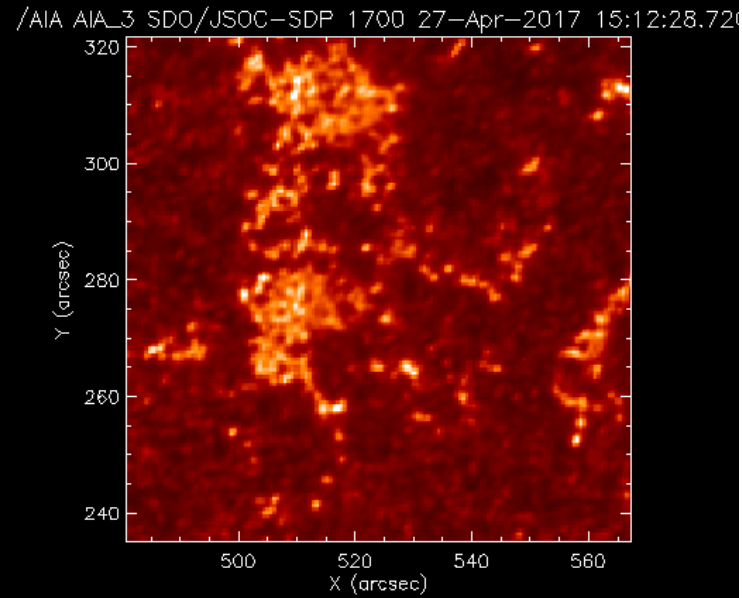
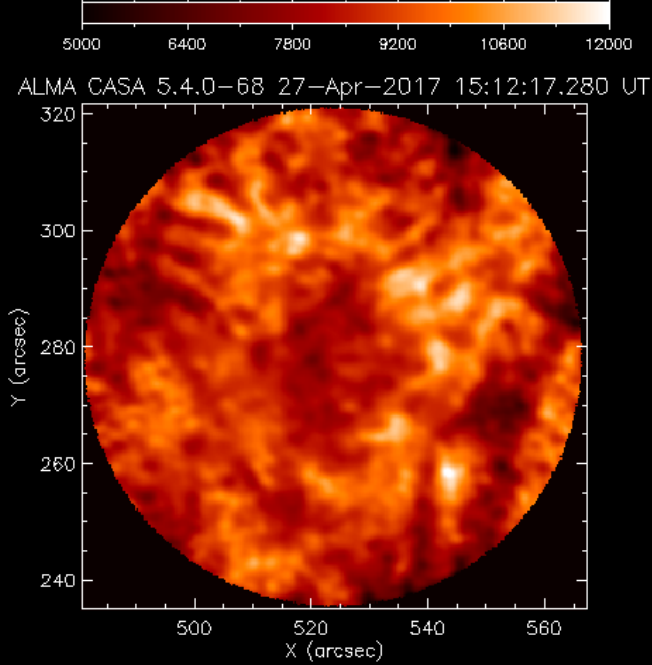
# ALMA vs. AIA304

AIA304で小爆発的な  
増光。ALMAでも同位  
置で増光あり。



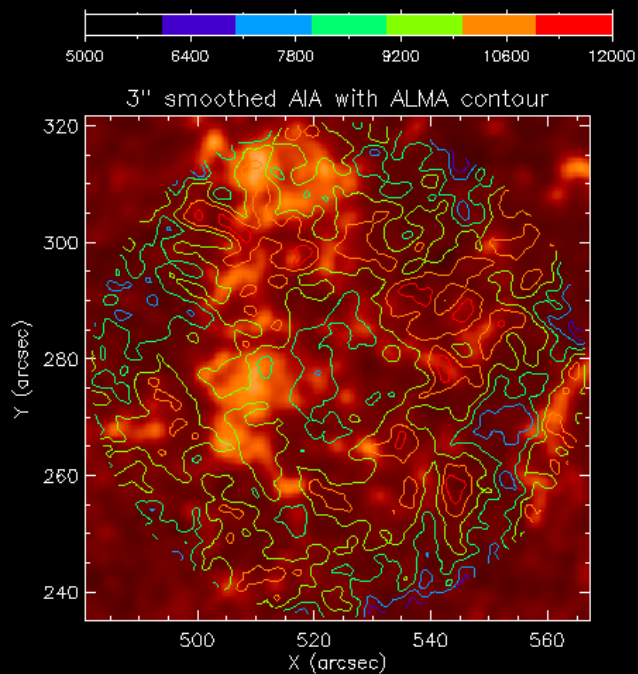
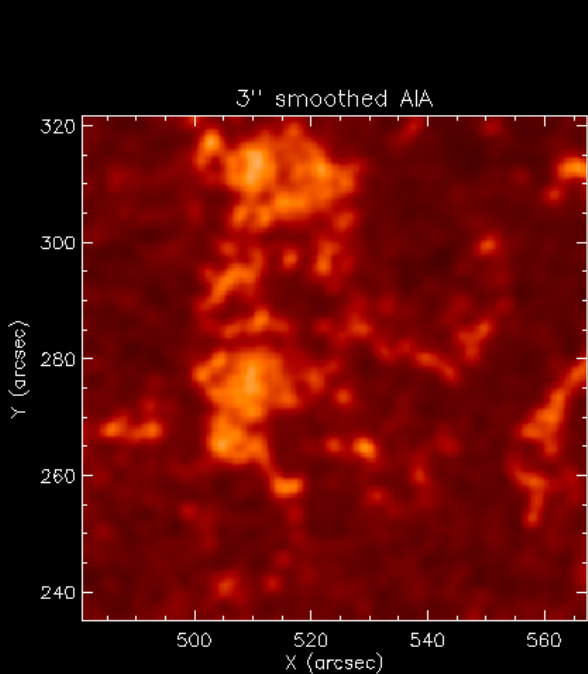
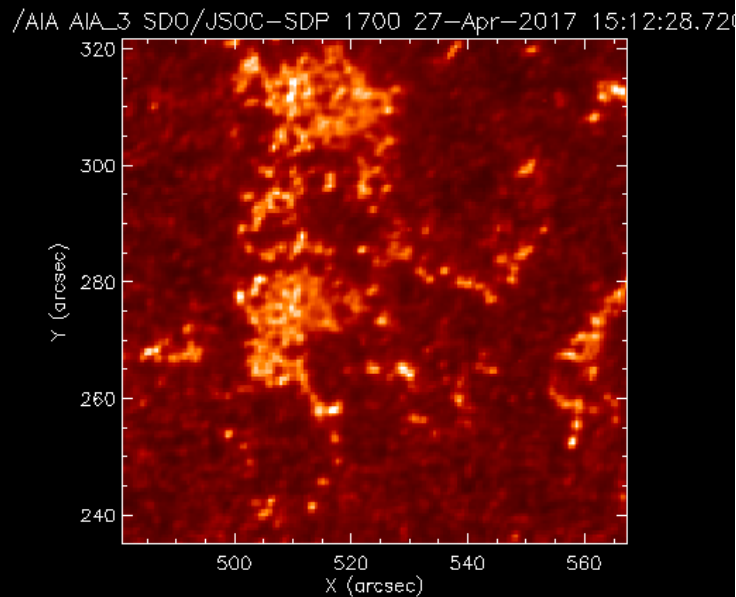
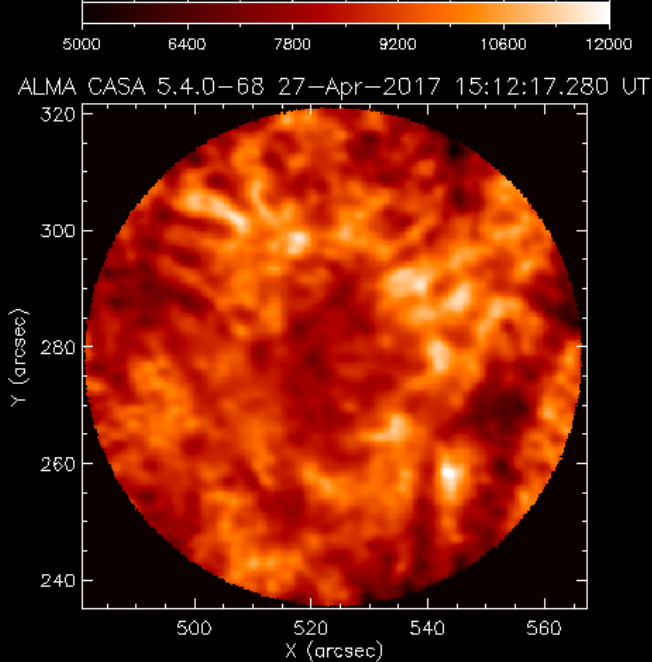
# ALMA vs. AIA1700

顕著な対応関係は見  
当たらず。

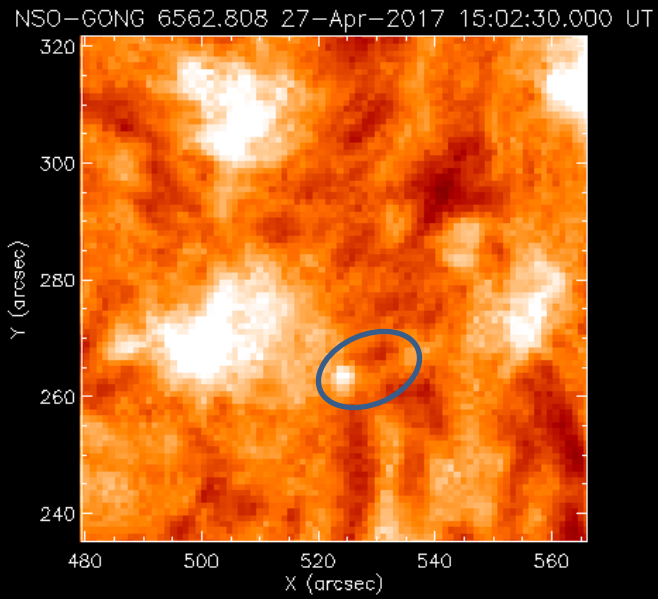
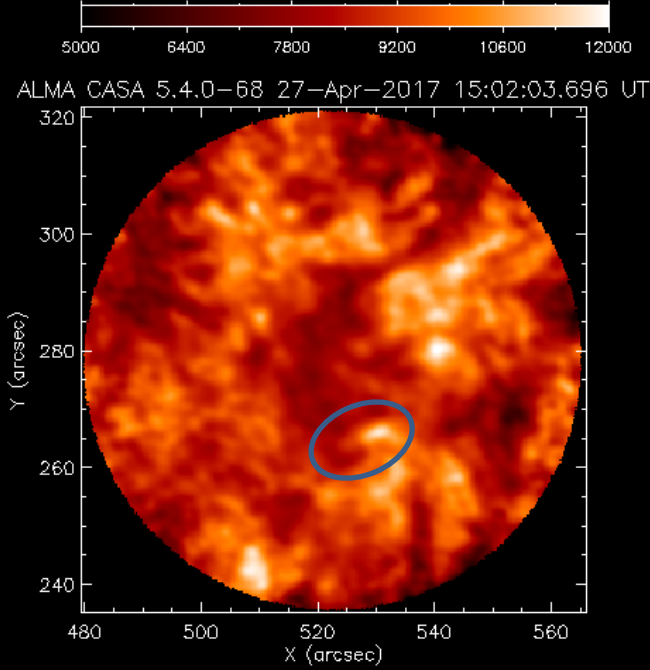


# ALMA vs. GONG Ha

顕著な対応関係は見  
当たらず。

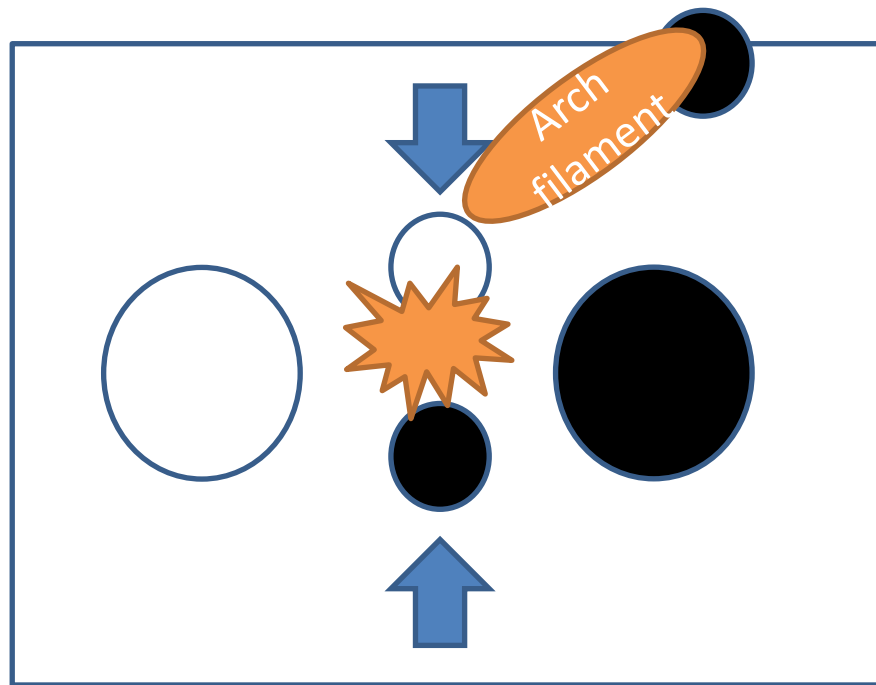






# ALMA vs. HMI

浮上磁束管に伴う  
arch filament形成



# まとめ

- 光球磁場データより、磁場キャンセレーションが発生している領域からジェットが伸びている。->AIA304, ALMA band3で観測。
- H $\alpha$ でもarch filamentの形成を確認。
- その他AIAやIRISのデータもチェック予定。