SPECTRAL LINE ANALYSIS

MOMENTS IN CASA

$+V_{cir} \sin i \cos\Theta$

$+V_{cir} \sin i$

Θ

$-V_{cir} \sin i$
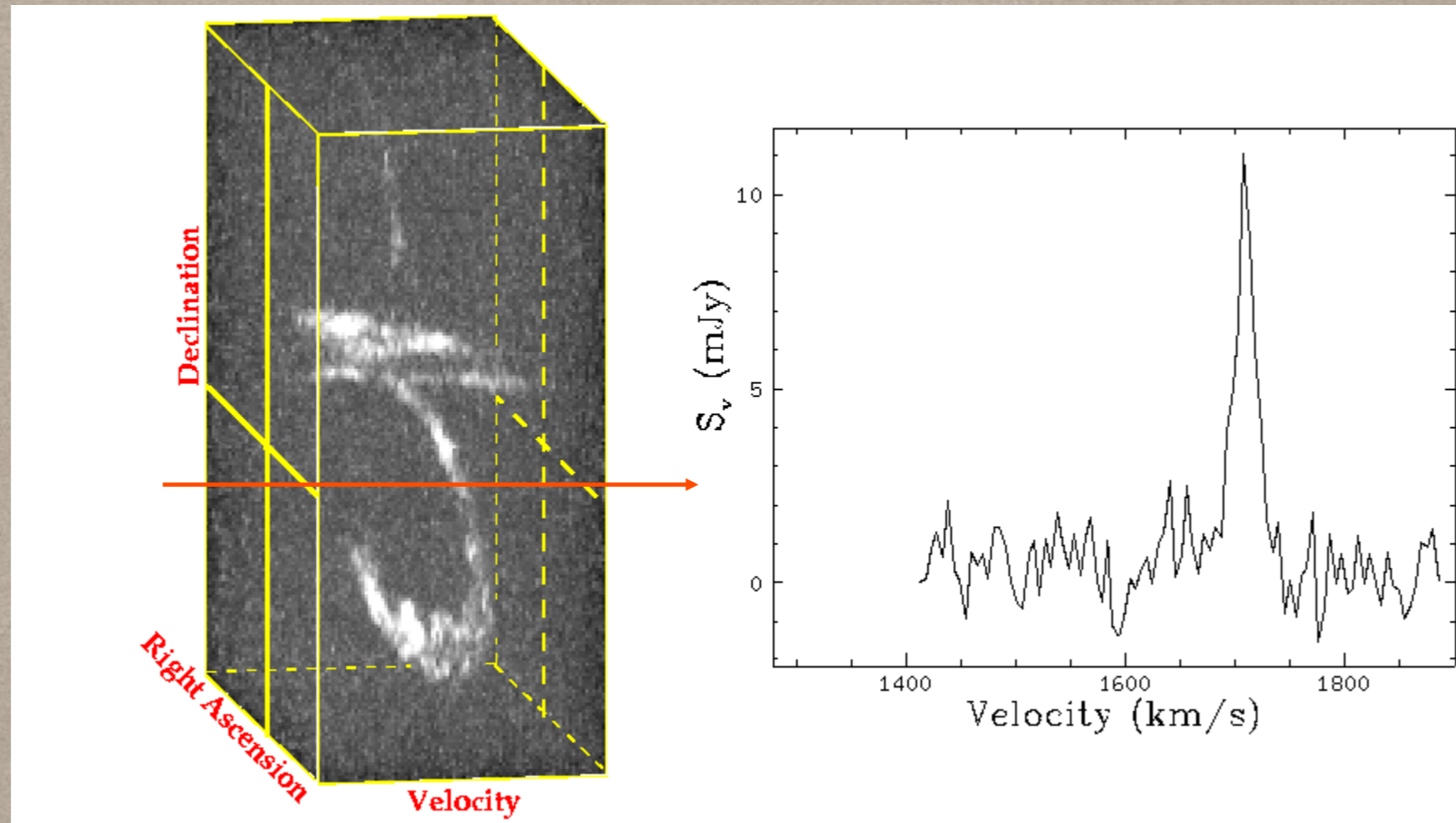
$-V_{cir} \sin i \cos\Theta$
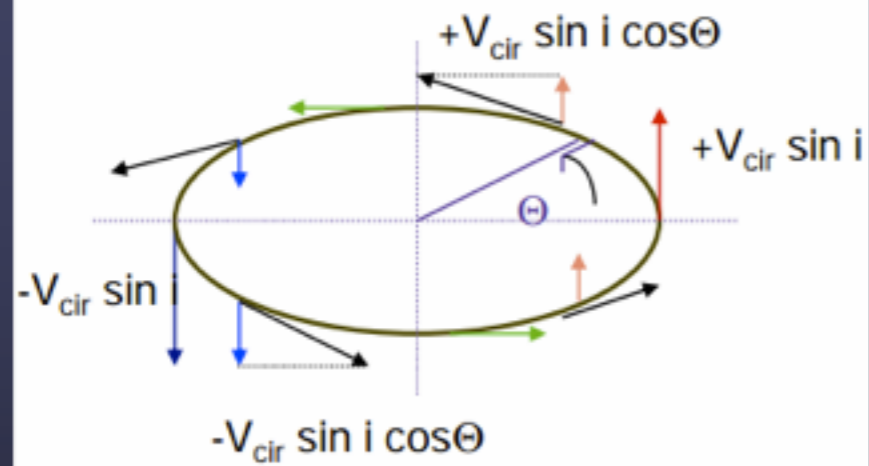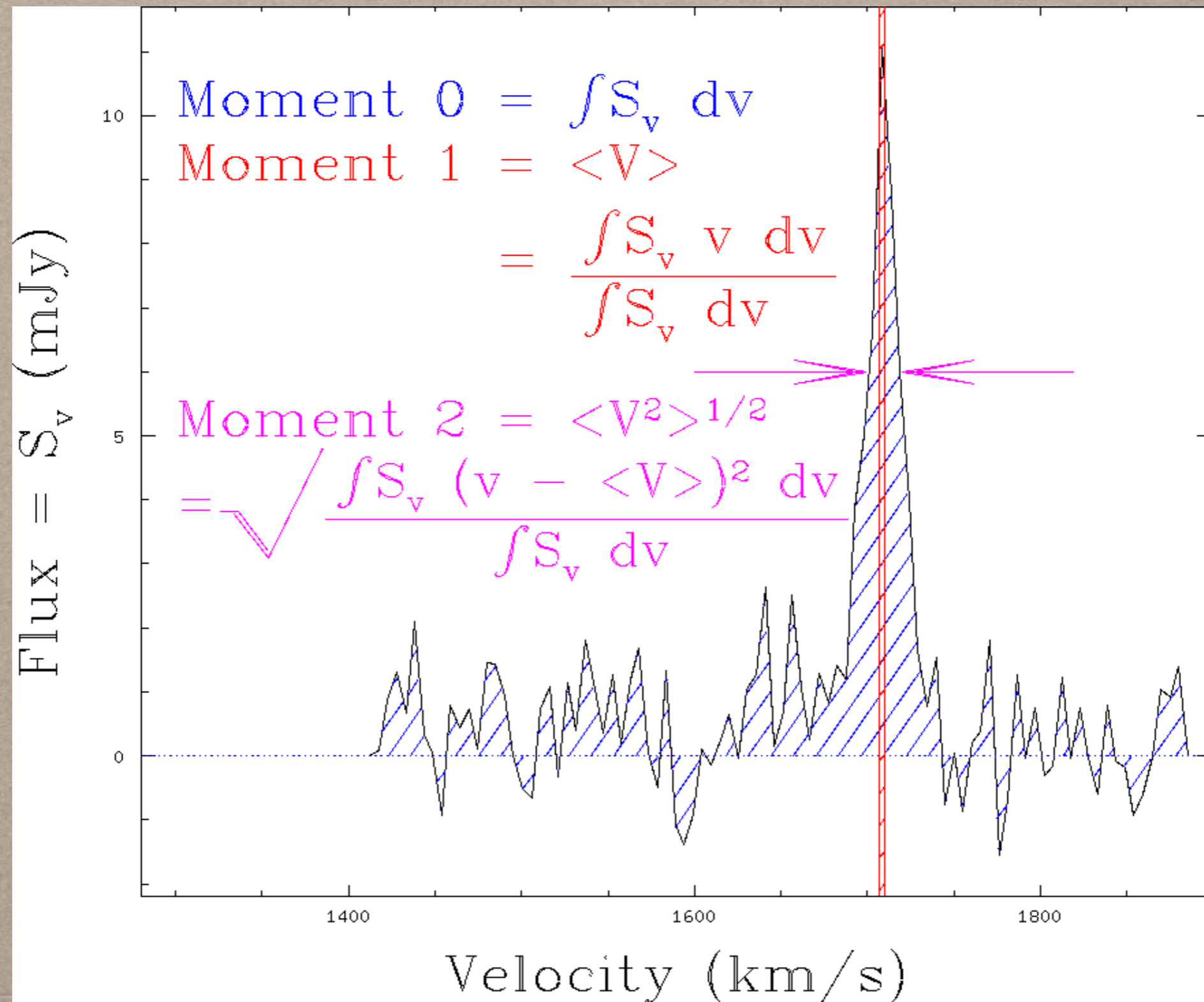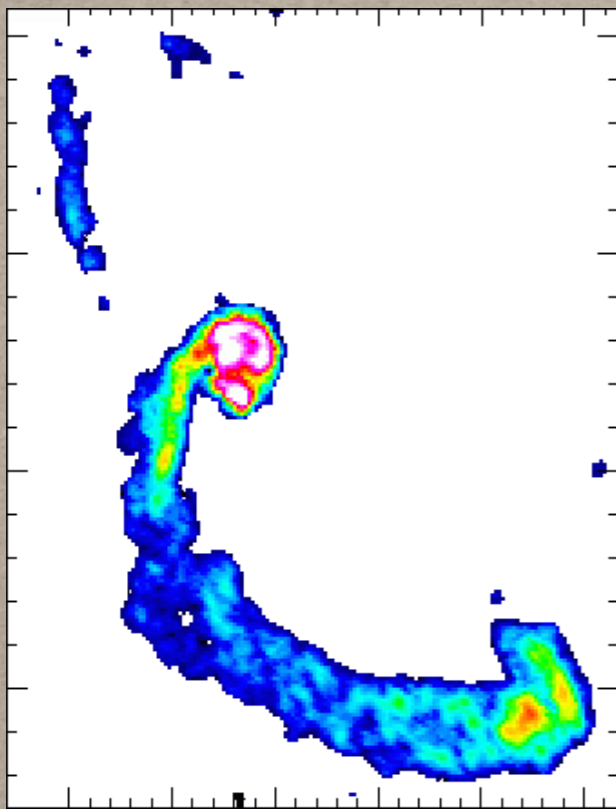
Mean Velocity Field

Channel Maps
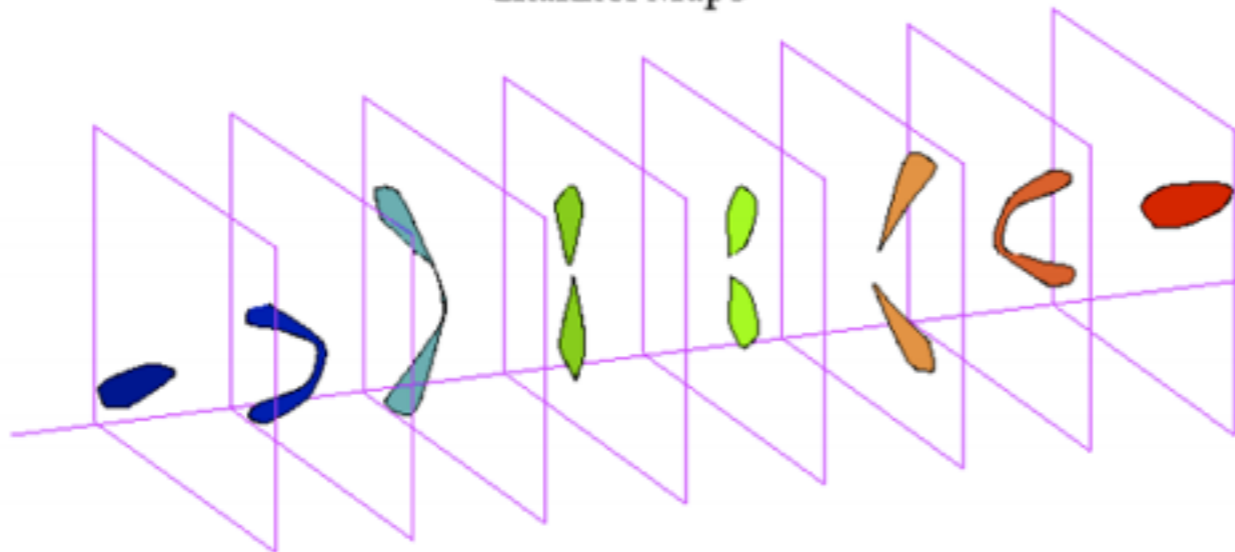
THE CUBE

i)   **1-D Slices along velocity axis = line profiles**
ii) **2-D Slices along velocity axis = channel maps**
iii) **Slices along spatial dimension = position velocity profiles**
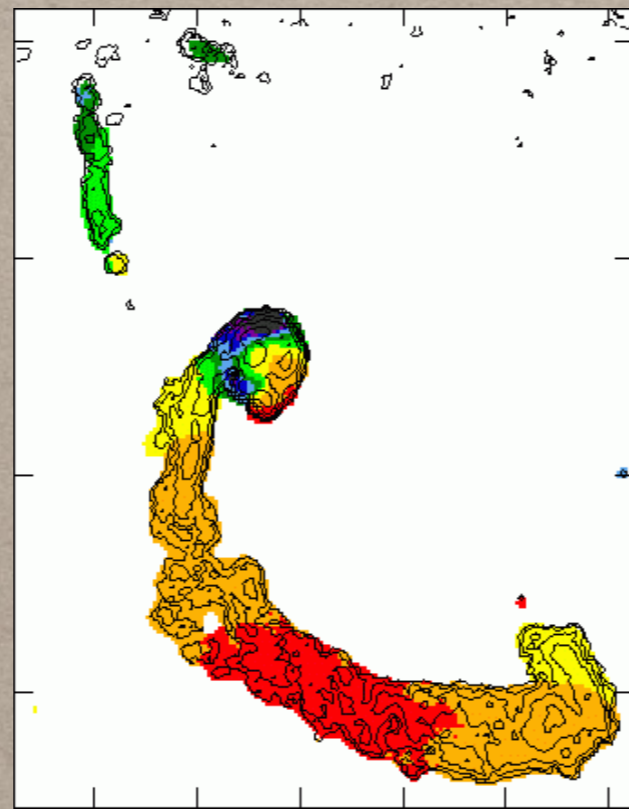iv) **Integration along the velocity axis = moment maps**

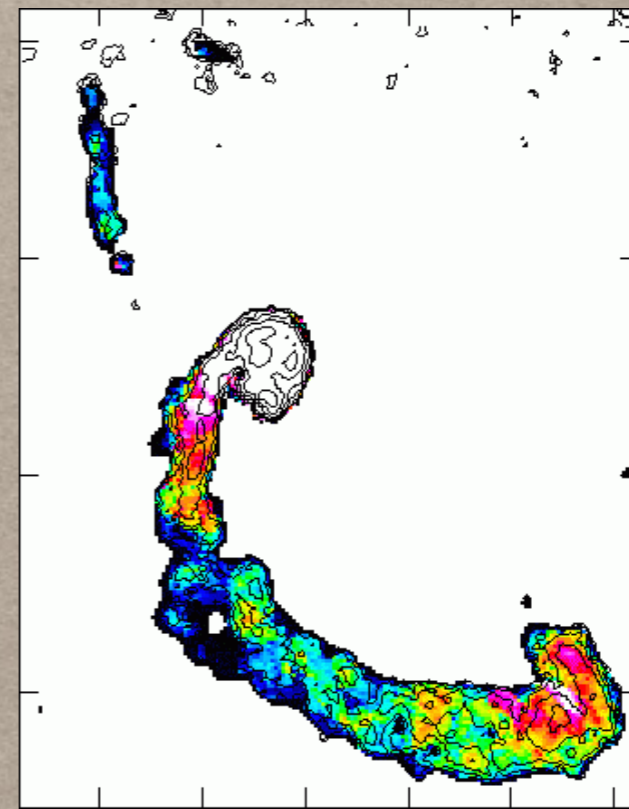# THE CUBE

0 moment

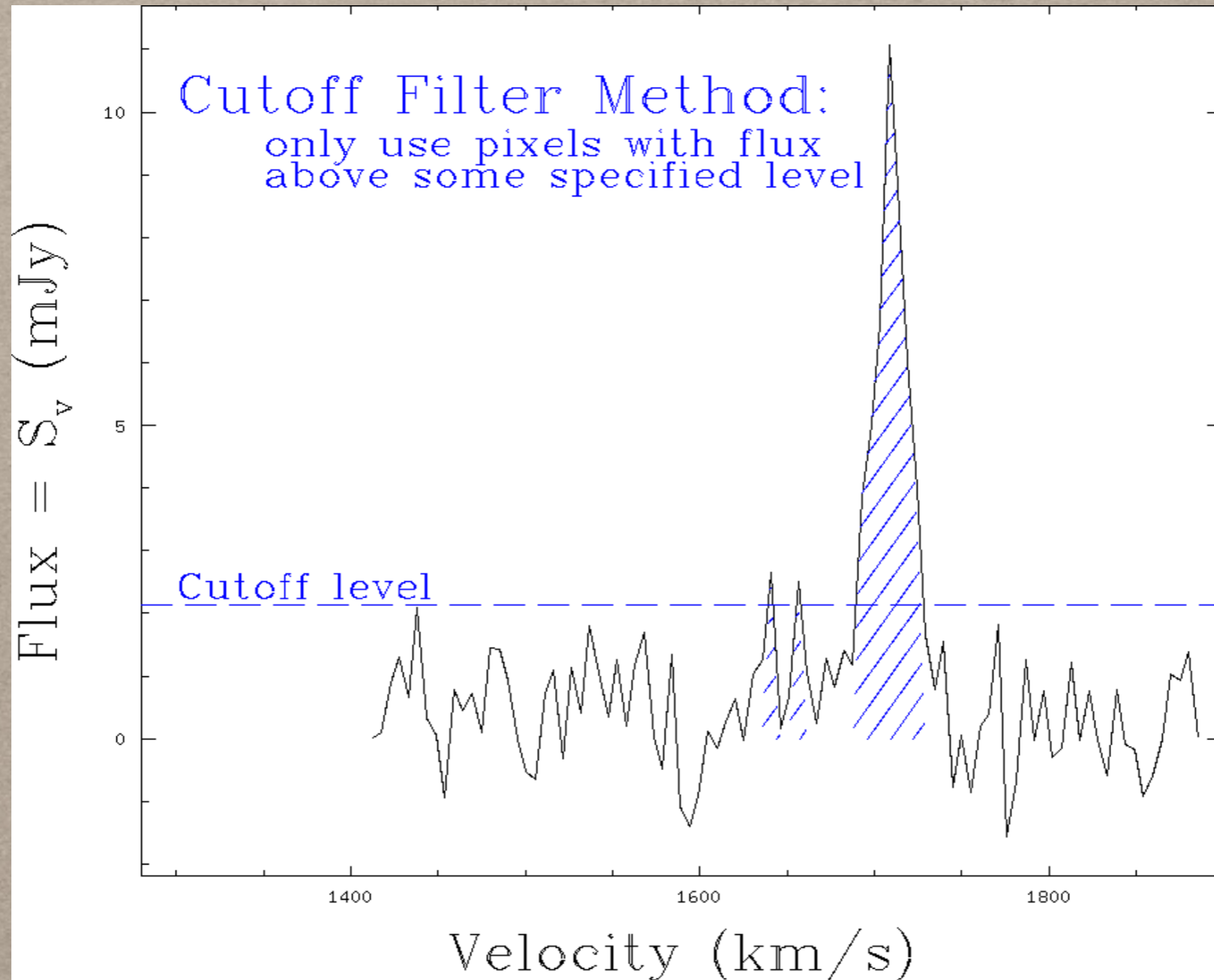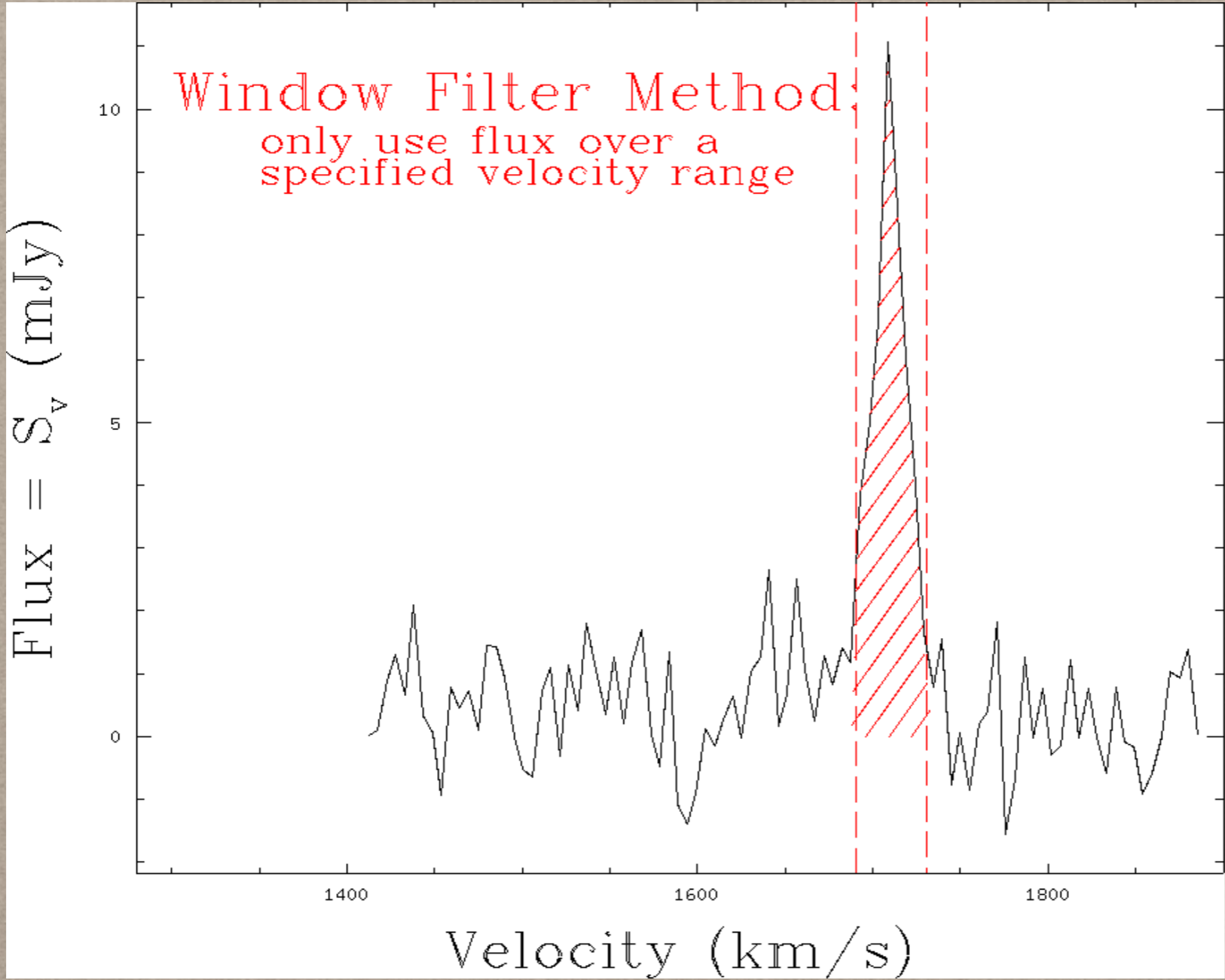Integrated Flux

1 moment

Mean Velocity

2 moment

Velocity Dispersion

CUTOFF LEVEL

WINDOW

IMMOMENTS TASK

- input parameter

    - imagename= ''

    - chans= '15~30'

    - moments = [0,1,2]

    - box = '38, 38, 90, 90'

    - axis = 'spectral'

    - includepix = [0.0045, 10000]

    - outfile = 'blablabla.m0/1/2'