

Black-hole mass estimates
and
AGN torus characterization
for a homogeneous sample of bright
FSRQs

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Collaborators:

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The sample

Complete sample of **255 blazars** selected from the WMAP7 catalog (Gold+11) at **23 GHz**

SDSS  **80 FSRQs** (with z)

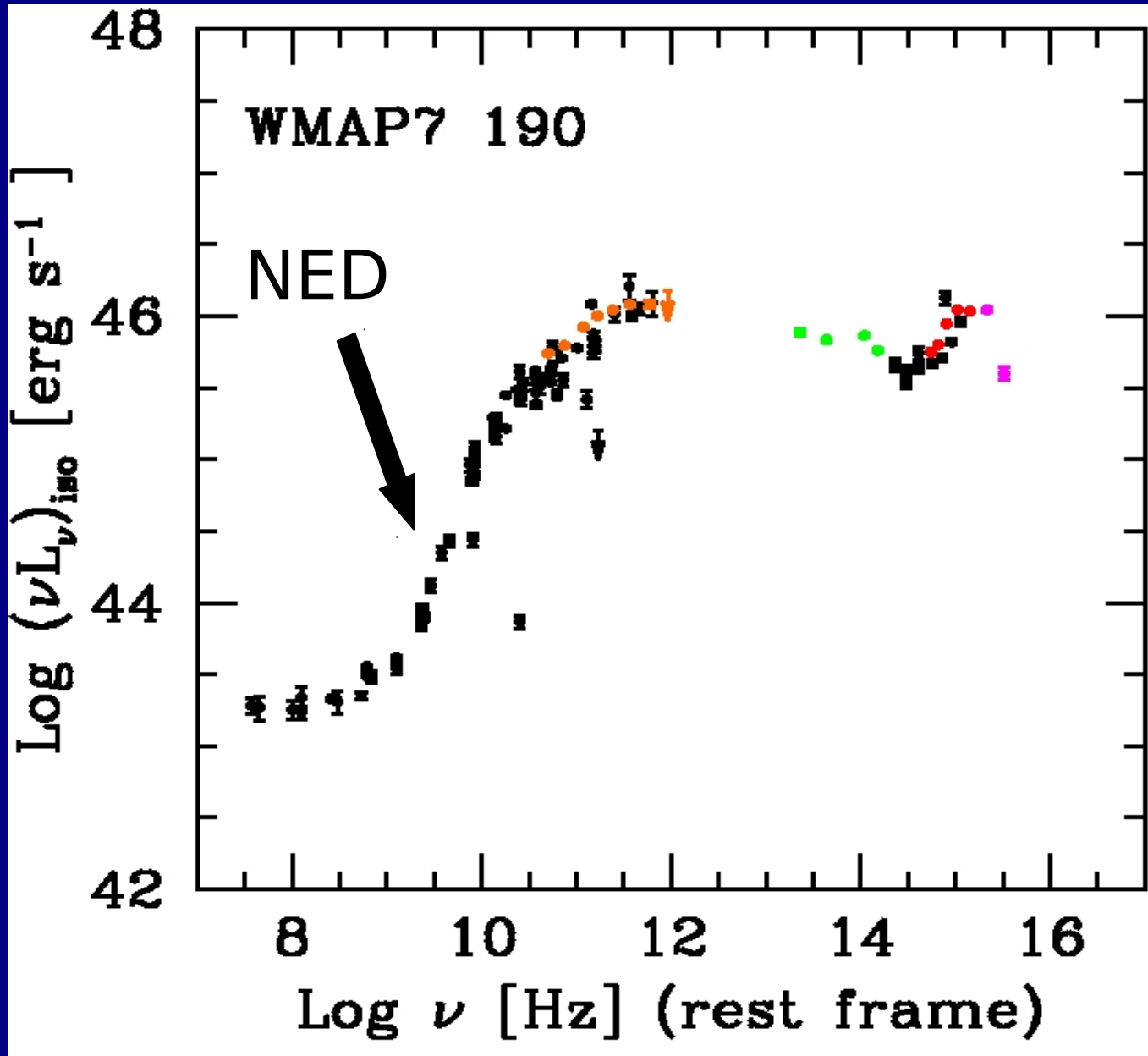
Goals

Study the accretion process and estimate physical quantities

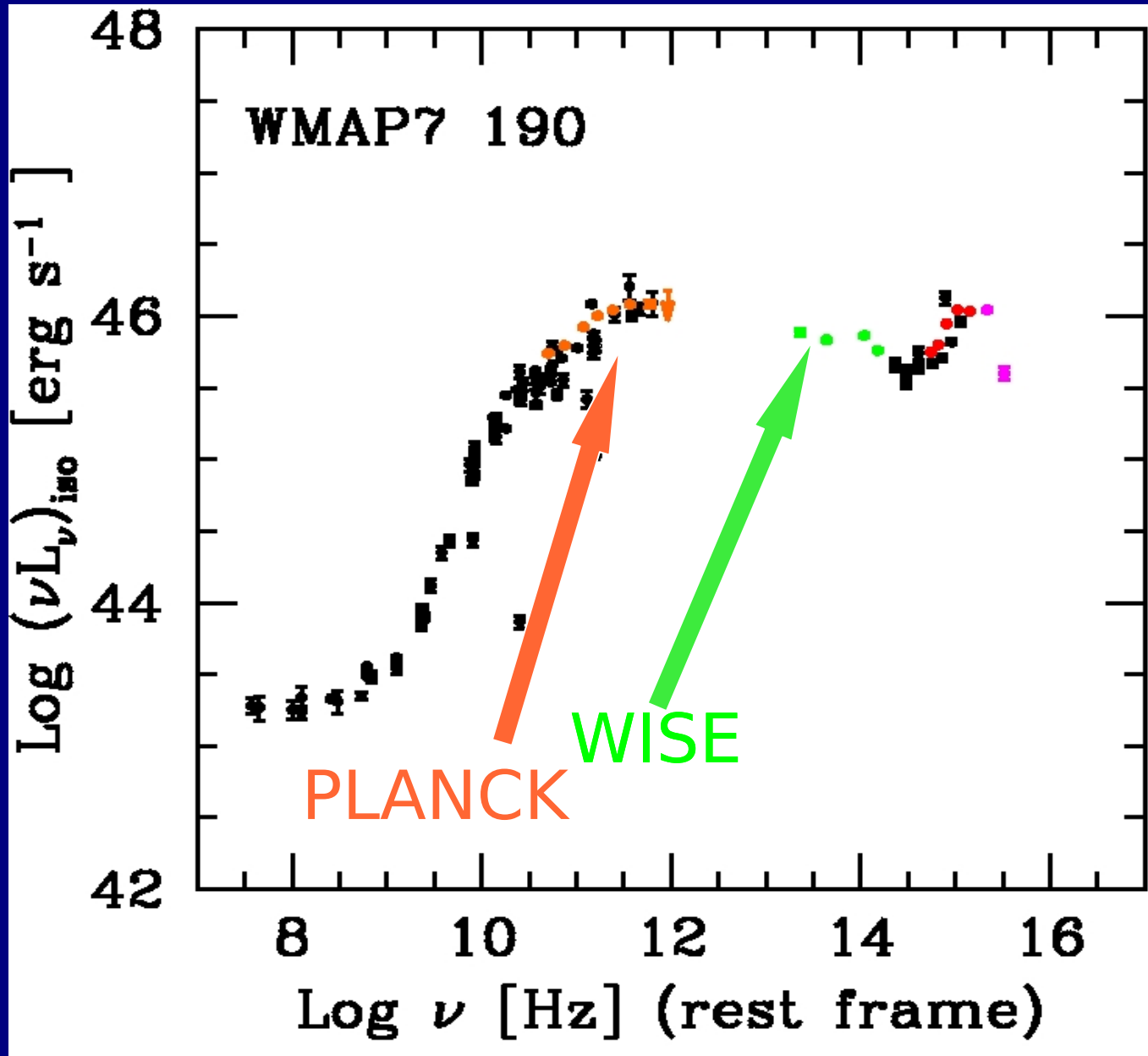
(e.g. Eddington ratios, BH masses, AGN torus luminosity)

on the basis of SED modeling

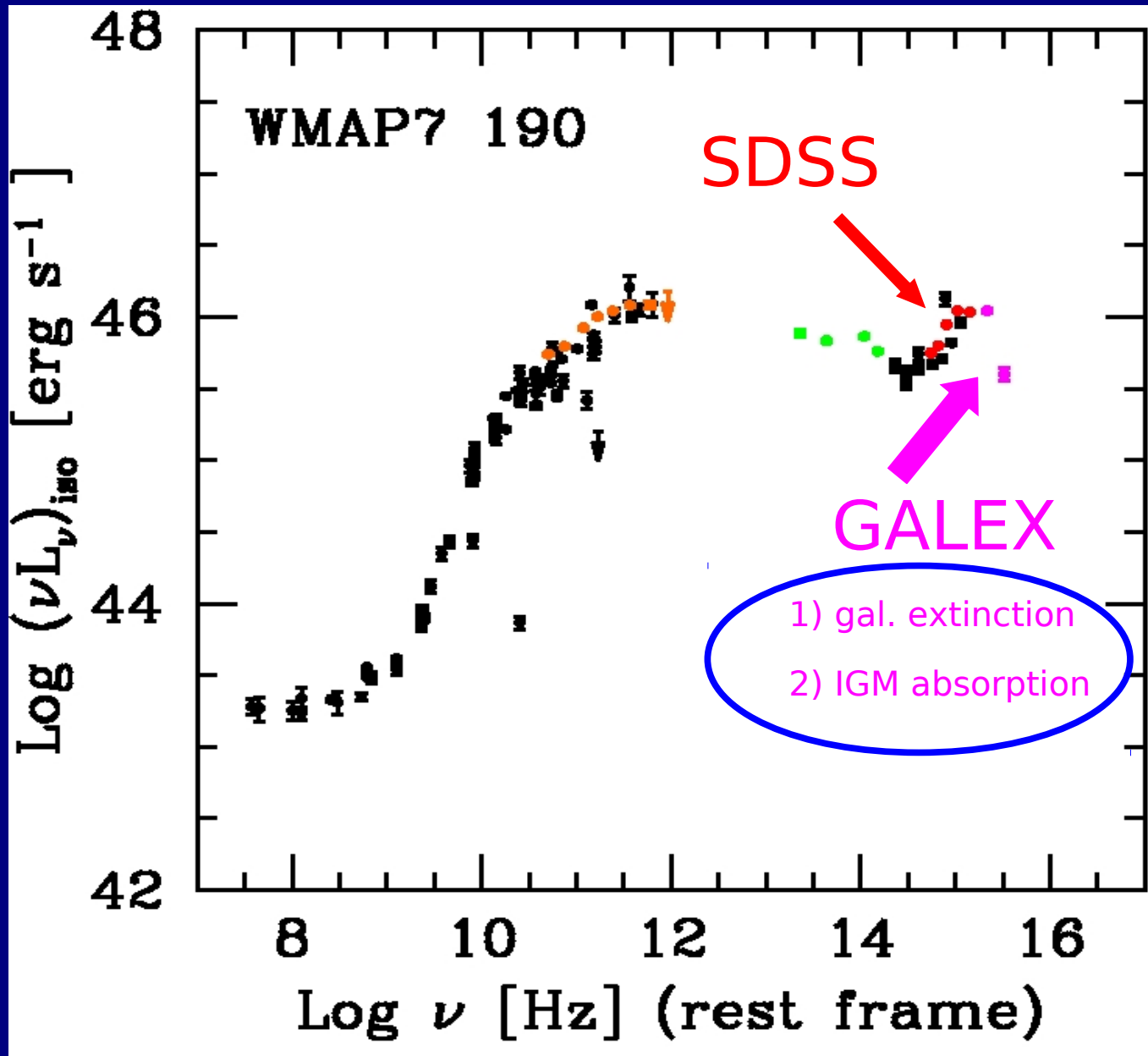
Photometric data



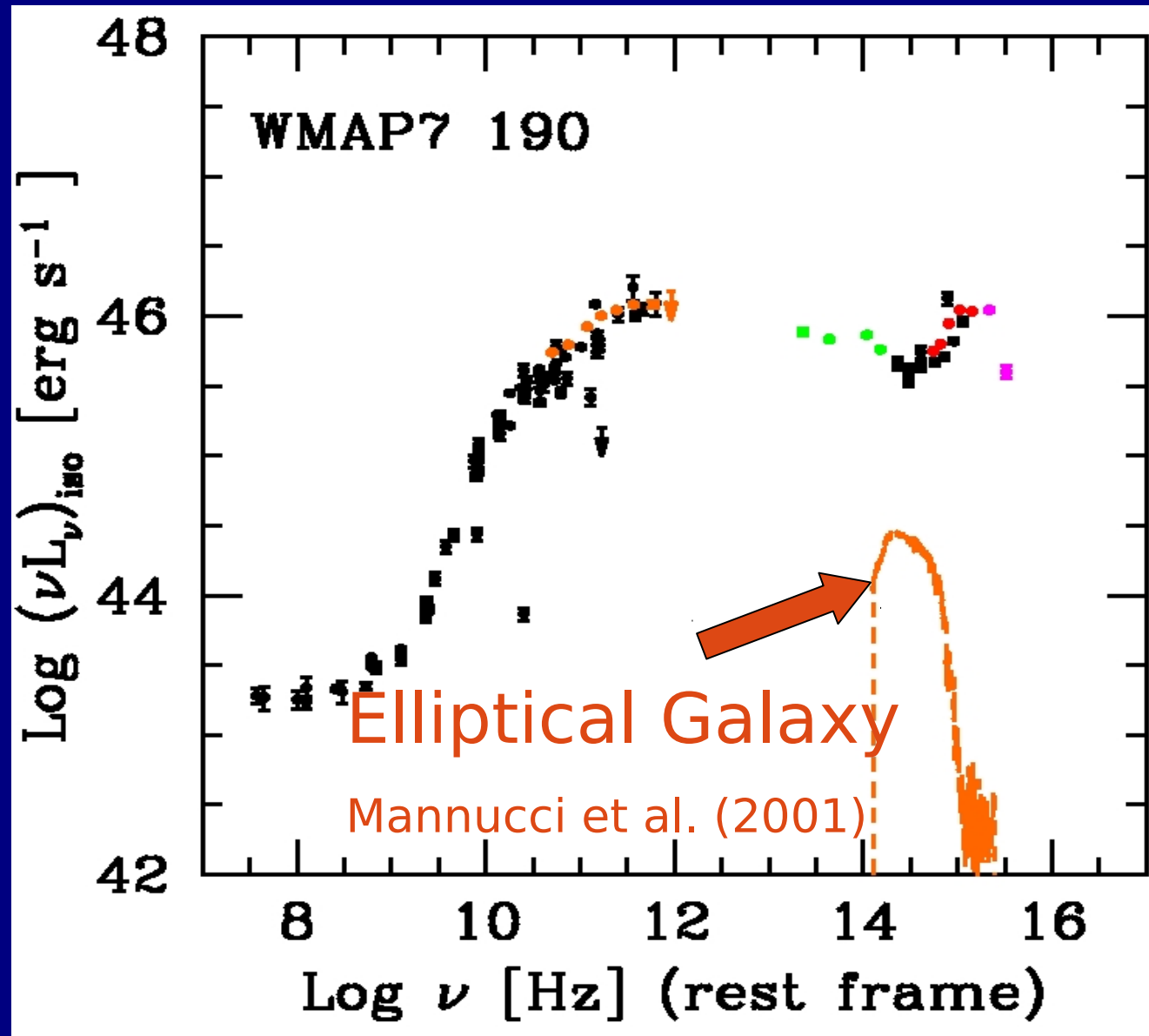
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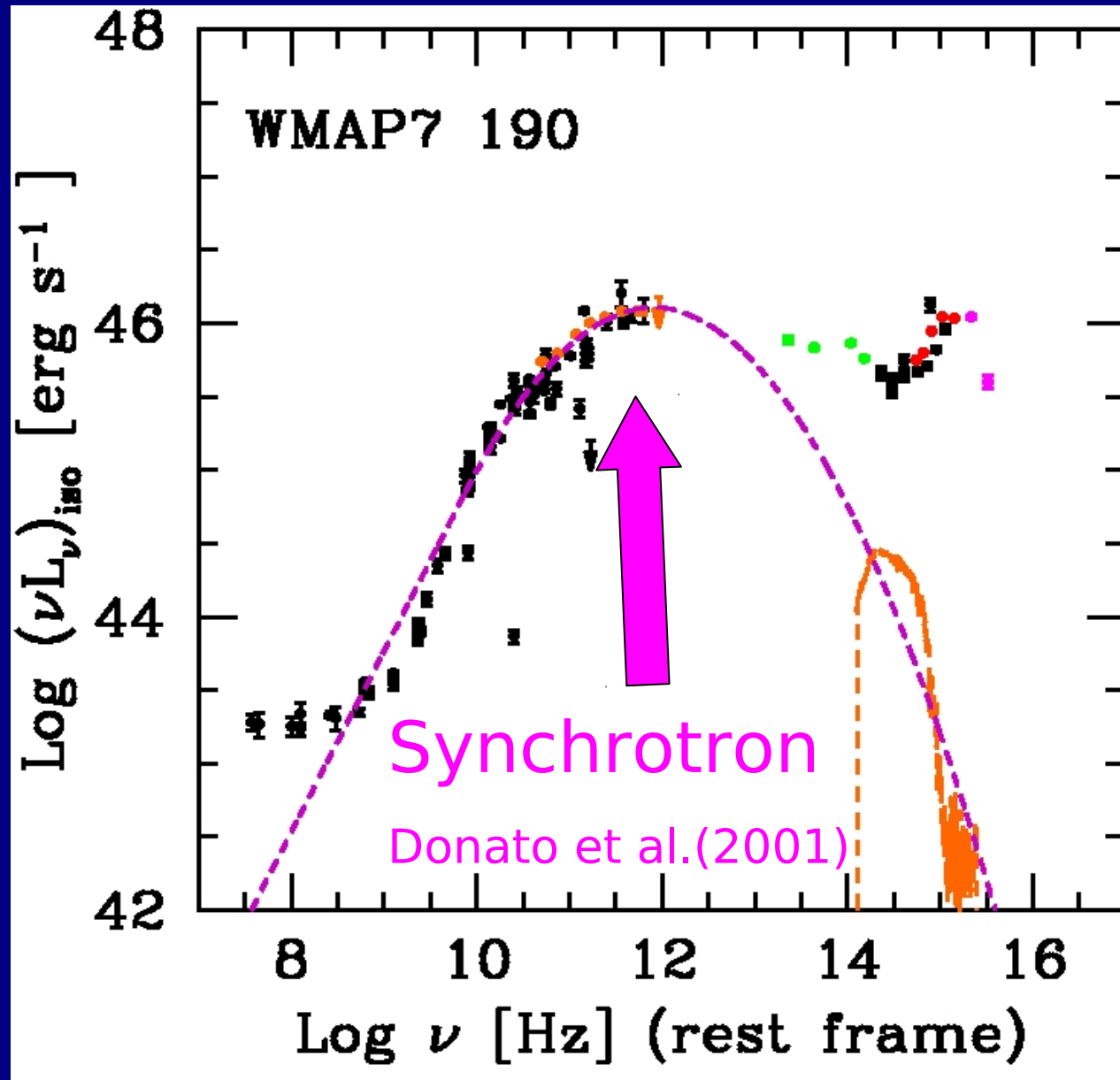
Photometric data



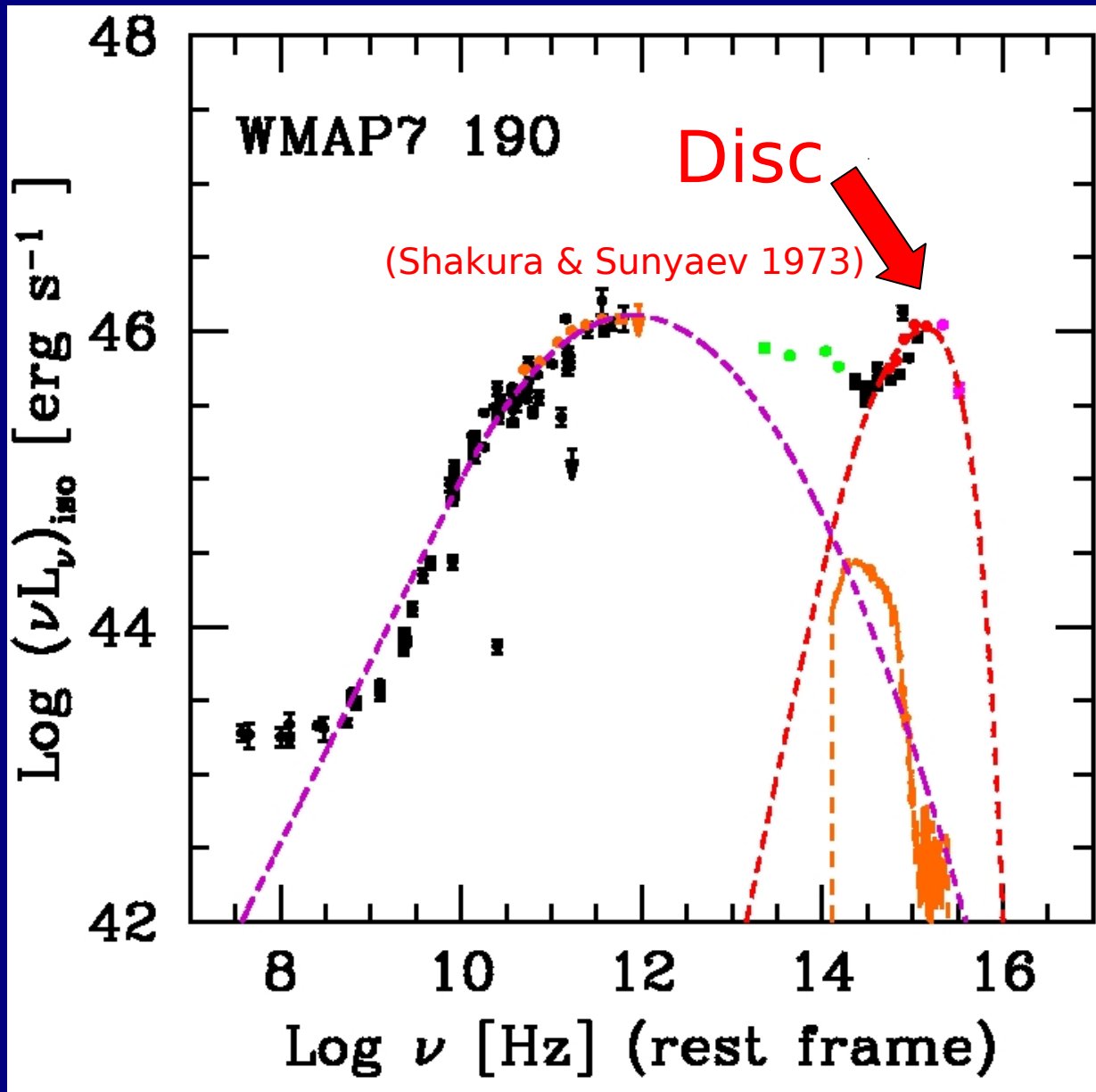
SED modeling



SED modeling



SED modeling

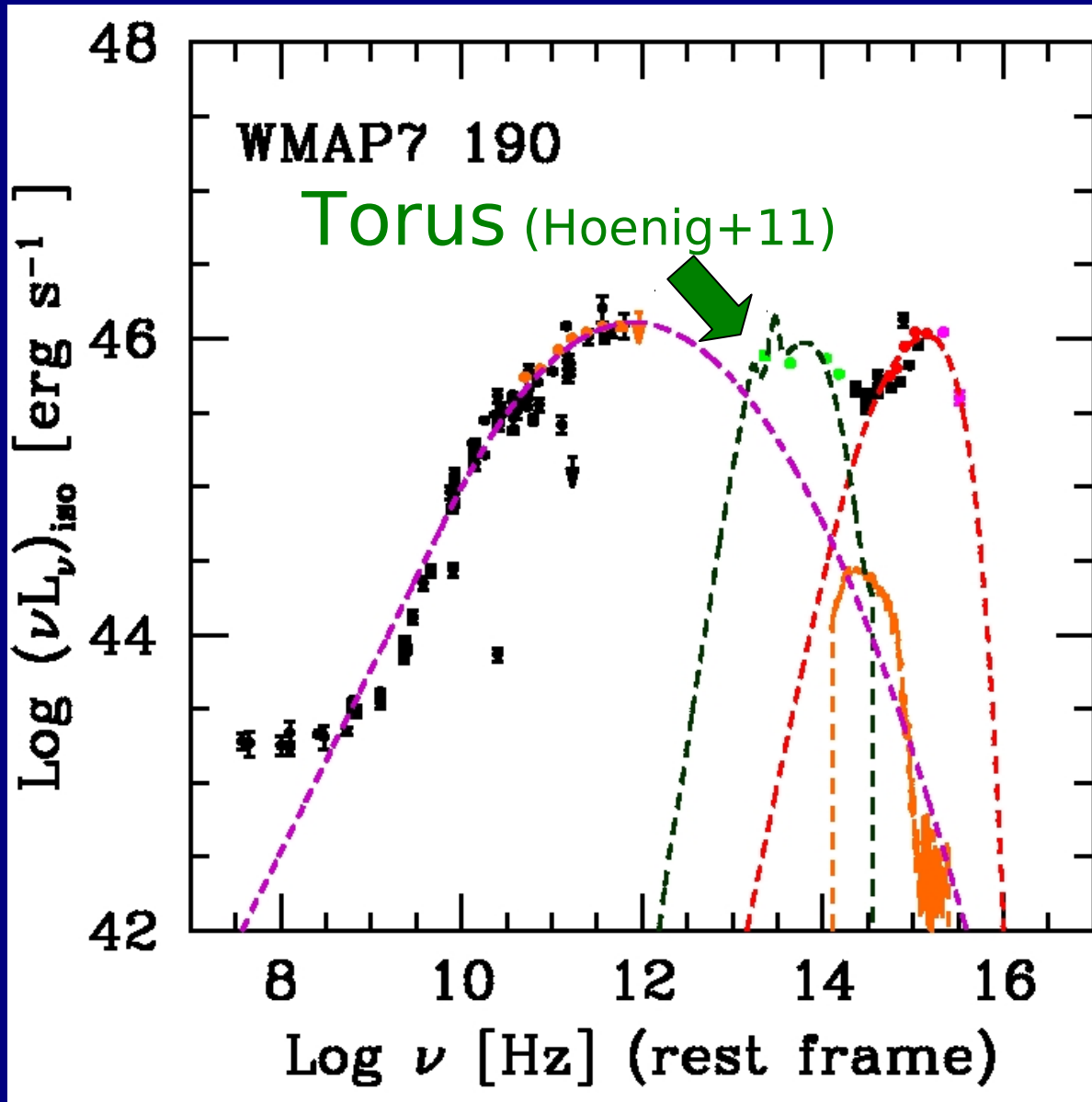


Optical/UV
bump
detected in

55 out of 80

FSRQs in the
sample
(Castignani+13)

SED modeling



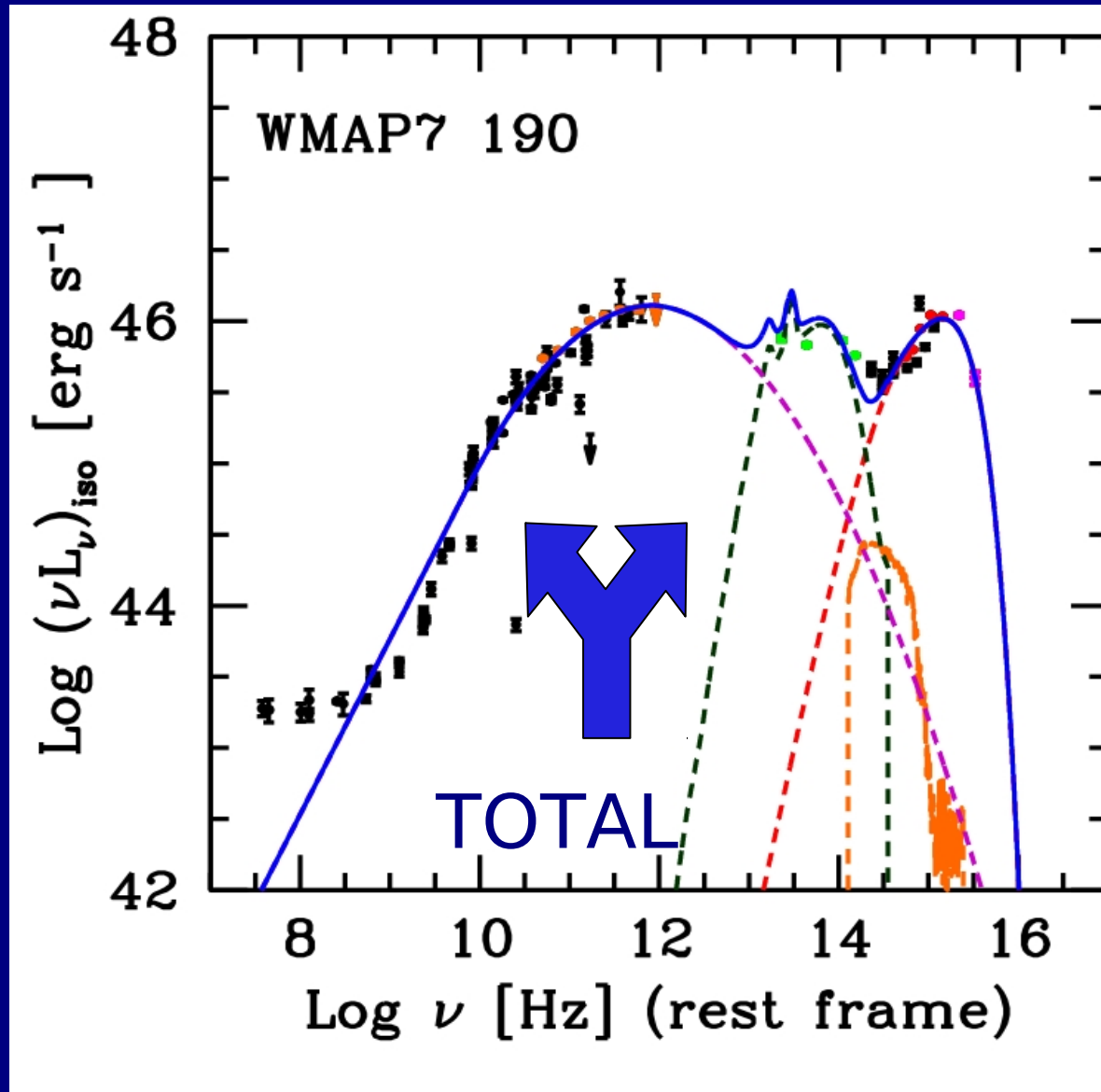
Optical/UV
bump
detected in
8 out of 55

FSRQs with evidence
of opt./UV bump

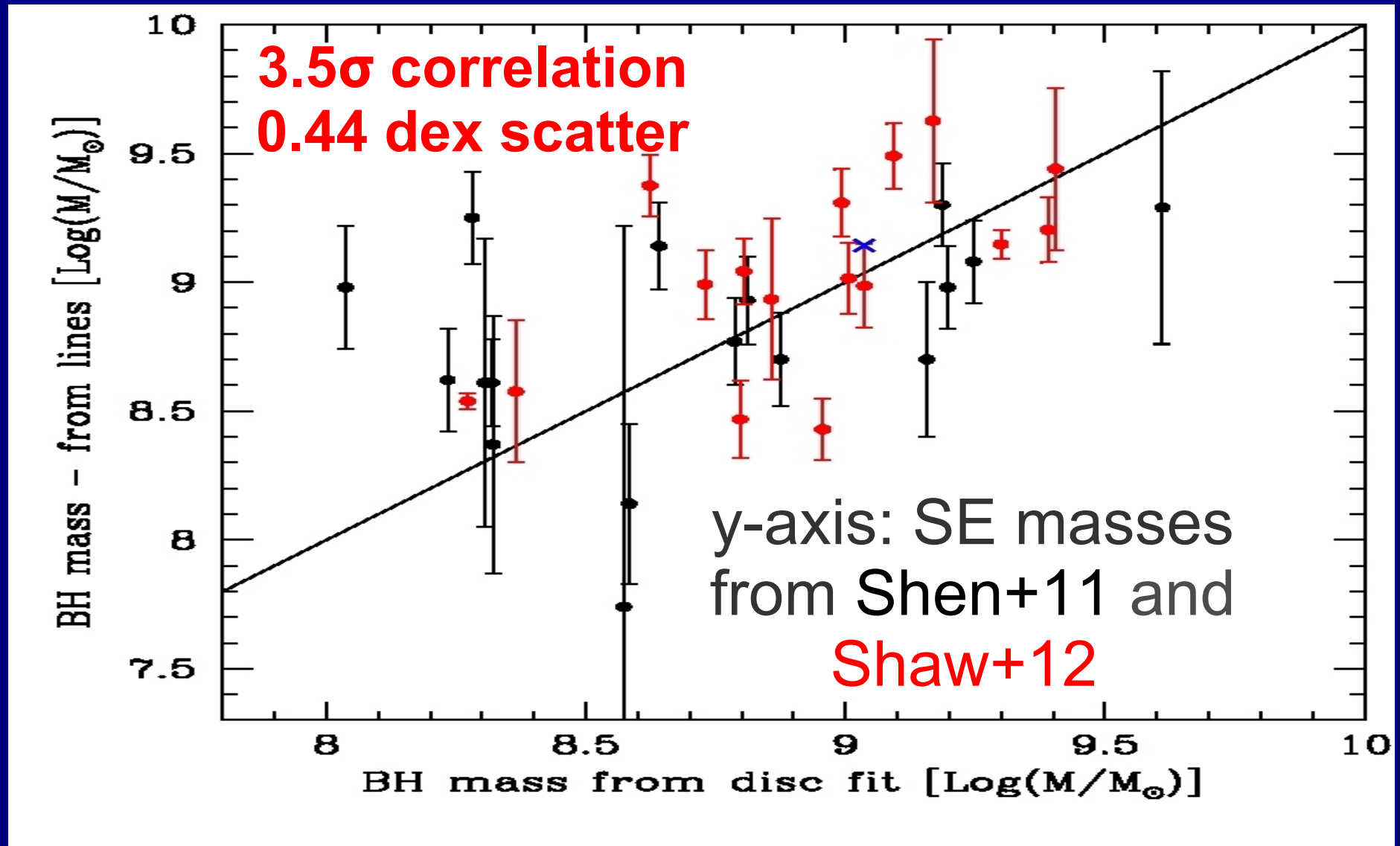
(38% of $z \leq 1$
FSRQs),

Castignani & De Zotti
A&A submitted

SED modeling



Black hole masses: SE vs. Blue Bump (BB)



Main results and conclusions

- Remarkable statistical 3.5σ agreement between independent SE and BB mass estimates in spite of the ~ 0.4 - 0.5 statistical SE uncertainties and those of the two models
- AGN tori are detected in those FSRQs with low synchrotron luminosity and peak frequency
- Future work: SED analysis including the other sources in the original sample of 255 blazars