

Plans for Papers (31 Aug 05)

- Papers in process, papers planned for the next year, paper ideas for year 1 of operations; which are proposed to be Category 1 and which are Category 2;
 - Currently most papers planned for pre - launch, clearly not using GLAST data, will be category II (III) papers. A number have already been published.
 - Search for Supersymmetric Dark Matter with GLAST
A.Morselli, A.Lionetto, A.Cesarini, F.Fucito, P.Ullio, Nucl. Phys. B 122B (2003) 413-416
 - The Galactic Center as a Dark Matter Gamma-Ray Source
A.Cesarini, F.Fucito, A.Lionetto, A.Morselli, P.Ullio, Astrop. Phys. 267-285
 - Multifrequency analysis of neutralino dark matter annihilation in Coma cluster,
S.Colafrancesco, S.Profumo, P.Ullio, Astro-ph/0507575
 - Diffuse inverse Compton and synchrotron emission from dark matter annihilations in galactic satellites. T. Baltz, L. Wai, Phys.Rev. D70 (2004) 023512
 - Repeat De Boer's paper with large group of LAT collaborators. Astro-ph/0412620 v1 23 Dec 2004, "Indirect Evidence for WIMP Annihilation from Diffuse Galactic Gamma Rays"
 - Possible category I is extensive and careful study of DM limits from all known experiments as a precursor to launch and what kind of limits GLAST can set.
 - After launch during 1st year paper on DM limits set by GLAST using pre-launch paper as a guide.



Plans for Papers (Feb. 06)

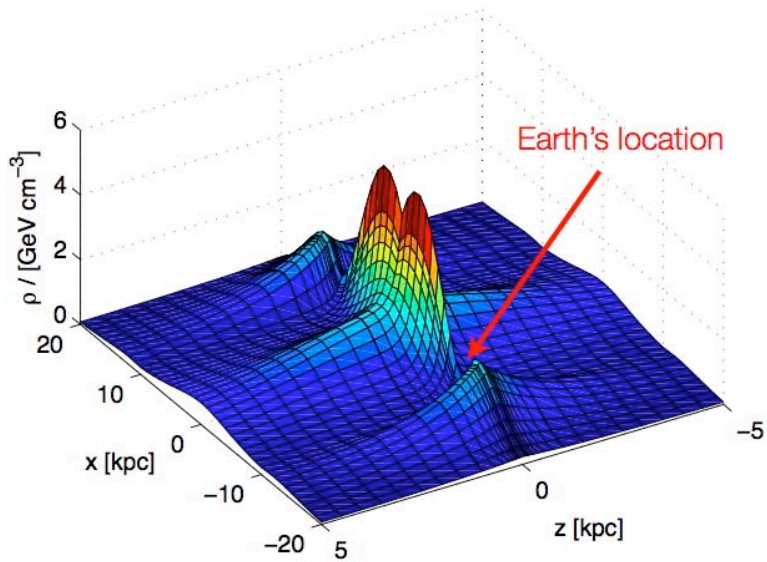
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- Comptonisation of CMB Photons in Dwarf Spheroidal Galaxies S.Colafrancesco et al. astro-ph/0602093
- Dark Matter and Gamma-Rays From Draco: MAGIC, GLAST and CACTUS
Lars Bergstrom, Dan Hooper hep-ph/0512317
- Uncertainties of Cosmic Ray Spectra and Detectability of Antiproton mSUGRA Contributions
A.M. Lionetto, A. Morselli, V. Zdravkovic JCAP 0509 (2005) 010
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- (now EGRET Excess of Diffuse Galactic Gamma Rays as Tracer of Dark Matter
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- -> in this line: DM06 presentations:
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minimal UED models Andrea Lionetto
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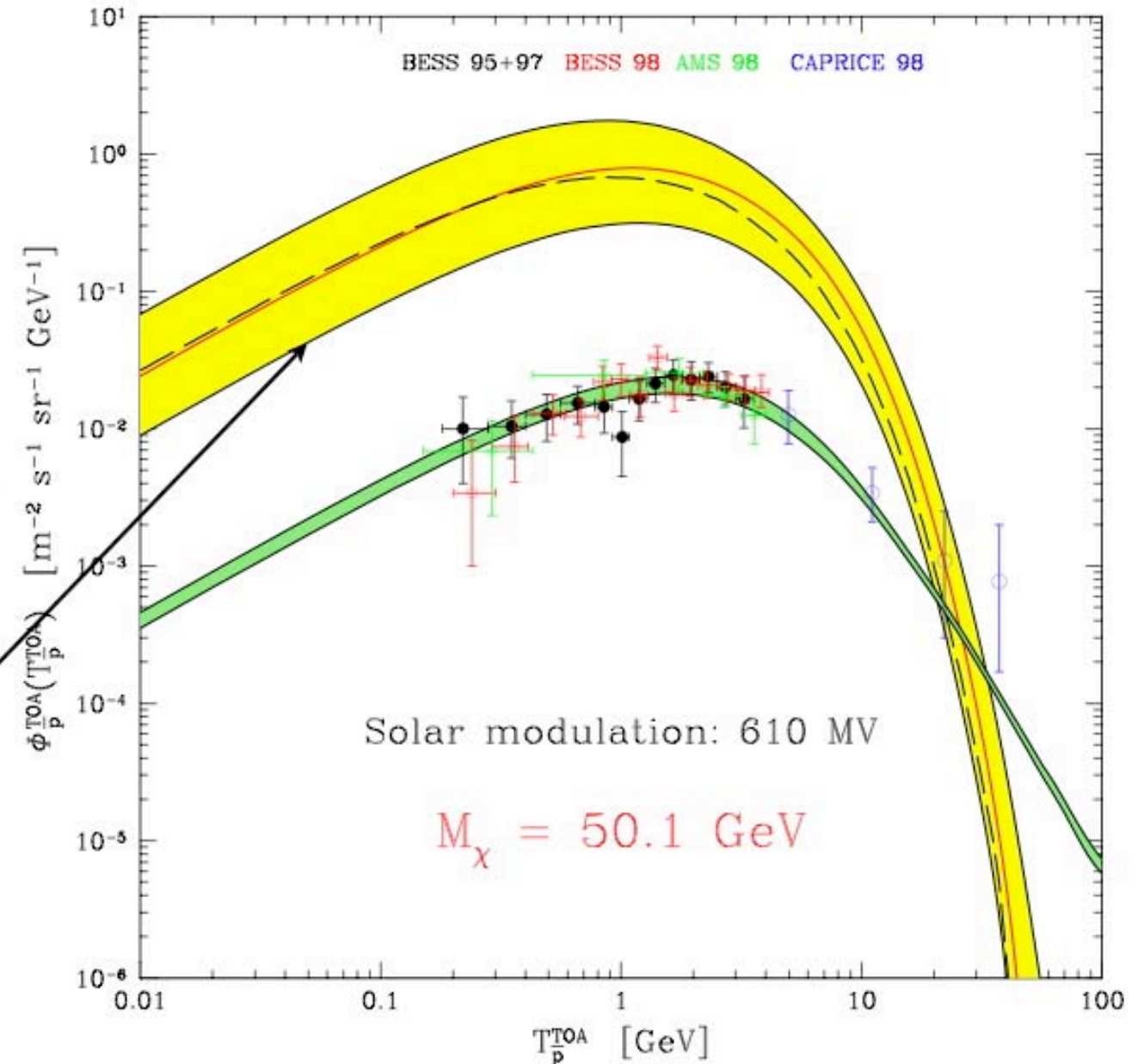


Discussion on De Boer Paper :


J.Edsio DM06



too many
antiprotons



Tutorial by Igor on Galprop







**MiniWorkshop on Propagation and Origin
of Cosmic Ray**
University of Rome 'Tor Vergata'
17-18 November 2005

Program

Program
How to Reach
Registration

17 November	
09:00 - 11:00	Tutorial Igor Moskalenko
11:00 - 11:30	Coffe Break
11:30 - 13:00	Personal installation of Galprop
13:00 - 14:30	Lunch
14:30 - 16:00	Seminar 'Challenges in astrophysics of cosmic rays and diffuse gamma-rays' Igor Moskalenko
16:00 - 20:00	Free discussion and hands-on
18 November	
09:00 - 10:00	Seminar : Galprop and Cosmic Rays Aldo Morselli
10:00 - 11:00	Seminar: Galprop and Gamma-rays Andrea Giuliani
11:00 - 11:30	Coffe Break
11:30 - 13:00	Discussion and hands-on
13:00 - 14:30	Lunch
14:30 - 16:00	Discussion and hands-on
16:00 - 17:30	Seminar 'Multiwavelength detection of Dark Matter' Piero Ullio
17:30 - 20:00	Free discussion and hands-on

Edited by
Vincenzo Buttarò

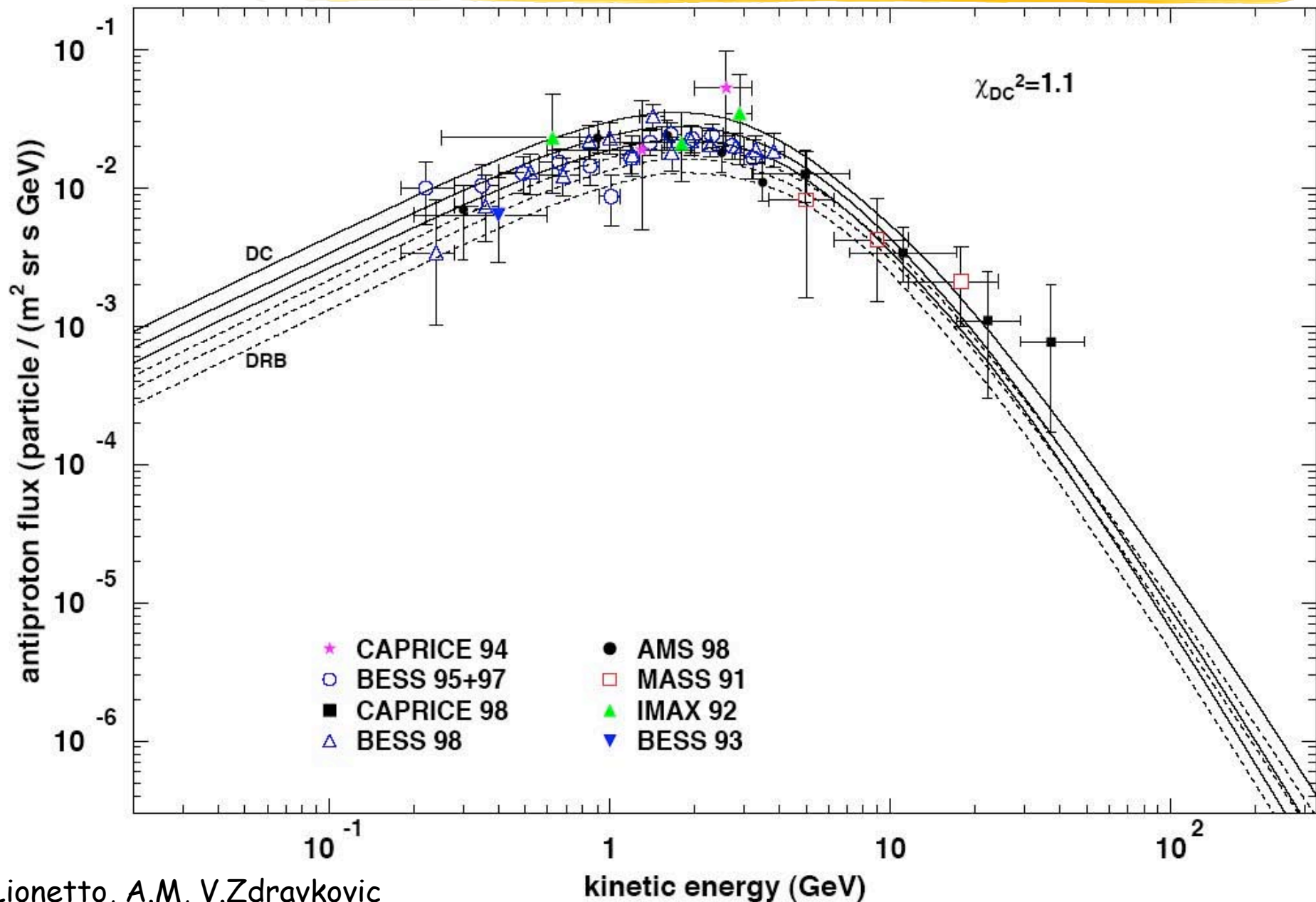
<http://www.roma2.infn.it/mw/>



Review of work in Europe, DM&NP working group meeting, 28/02/06, aldo.morselli@roma2.infn.it



Antiproton spectra: Upper and lower bounds of due to the uncertainties of propagation parameters

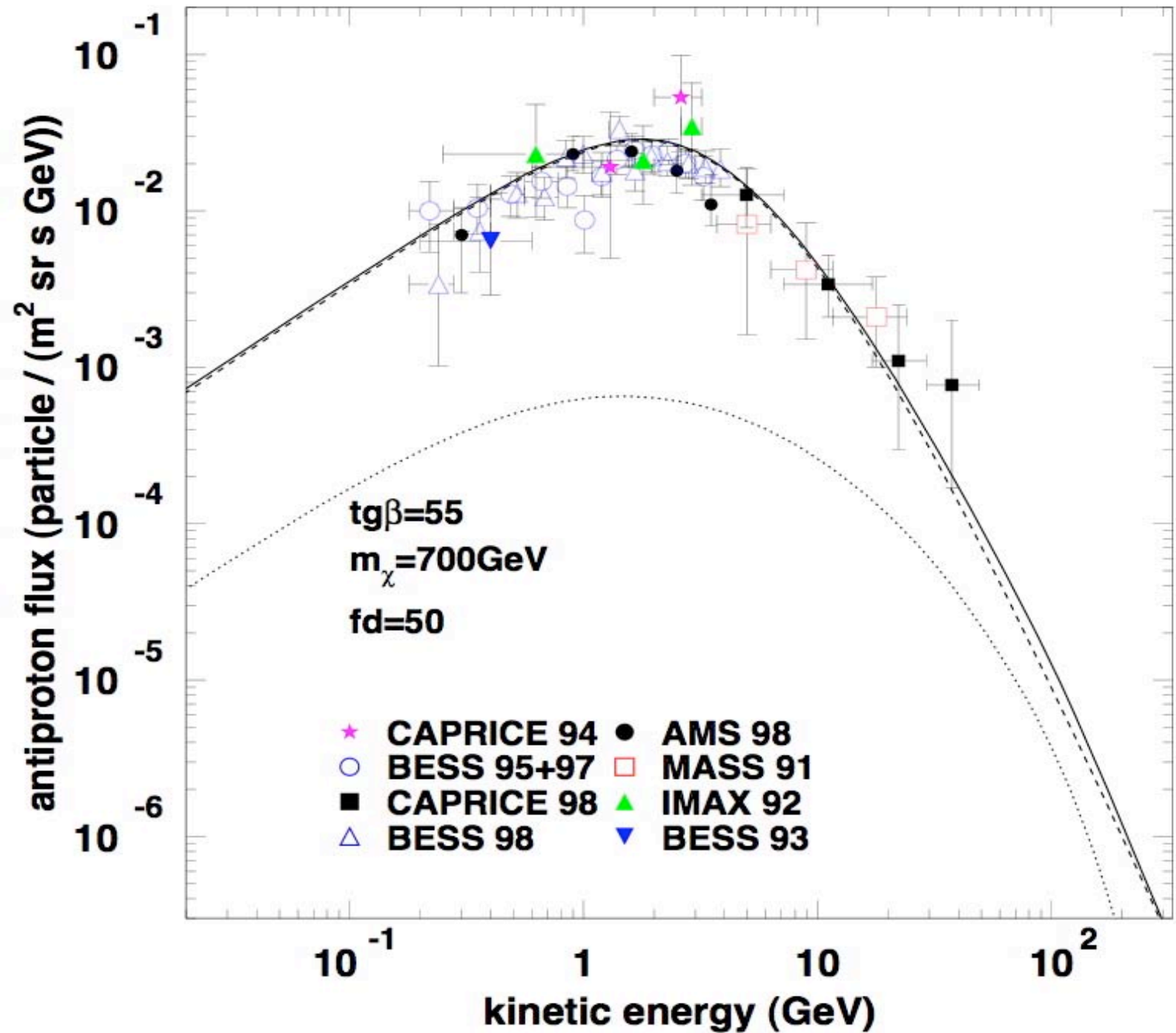


A.Lionetto, A.M, V.Zdravkovic
astro-ph/0502406, 21 Feb. 05

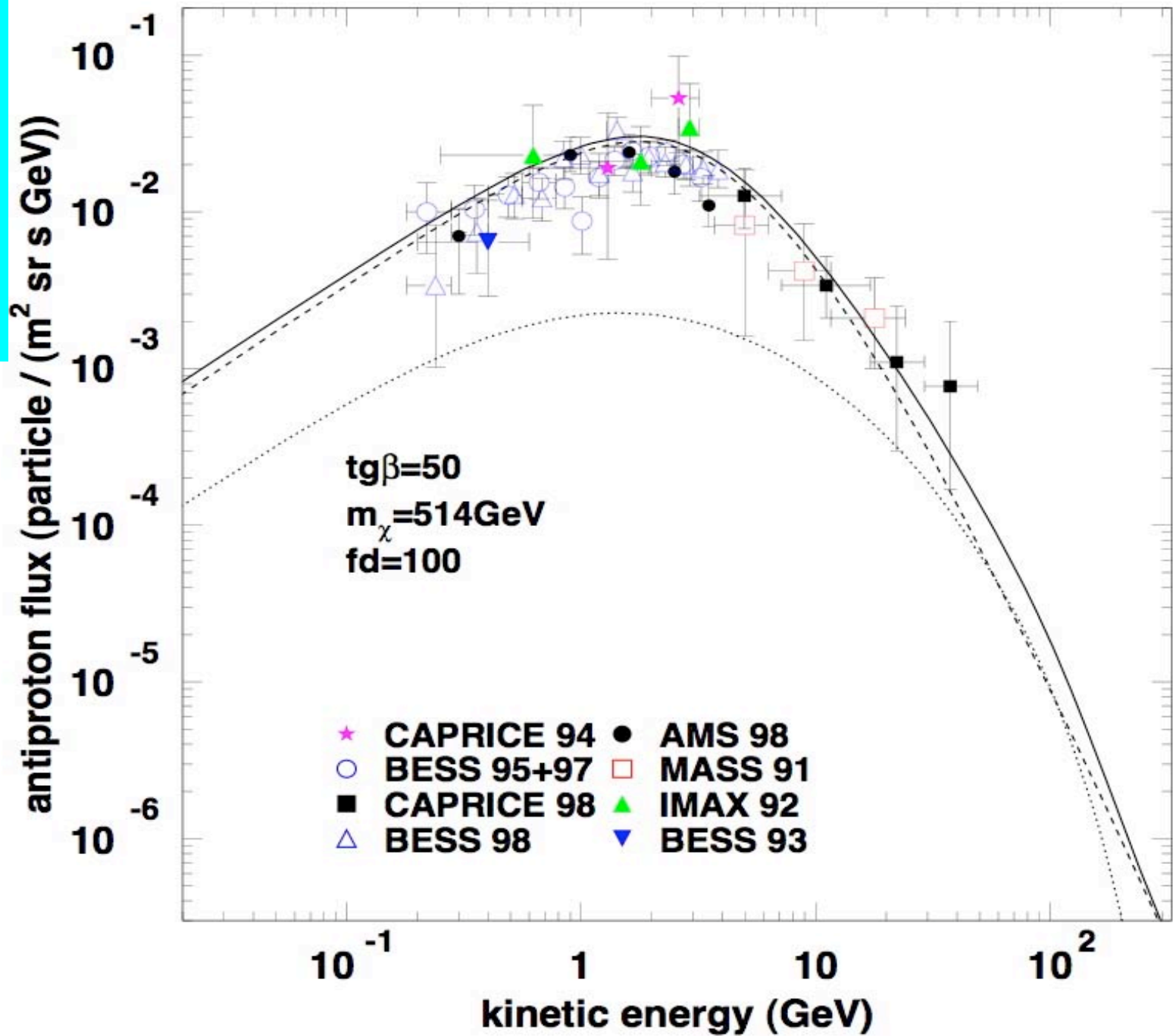
aldo.morselli@roma2.infn.it



Cosmic-Ray
Antiparticle
Measurements:
Antiprotons

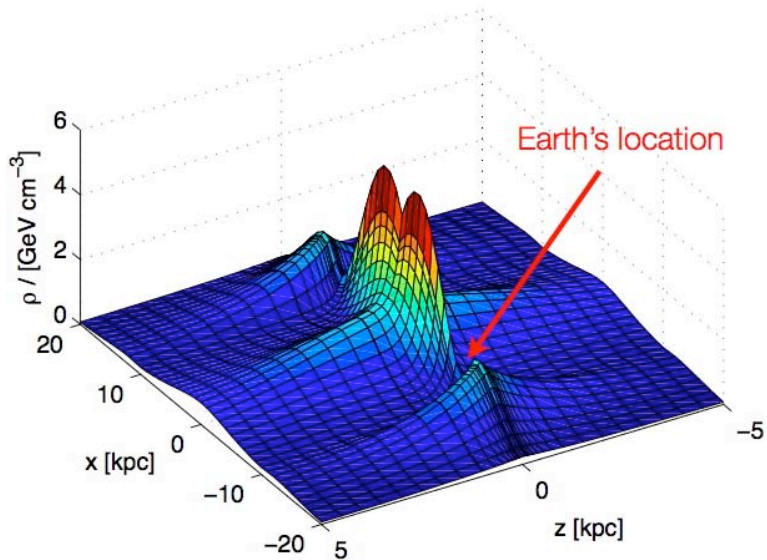


Cosmic-Ray
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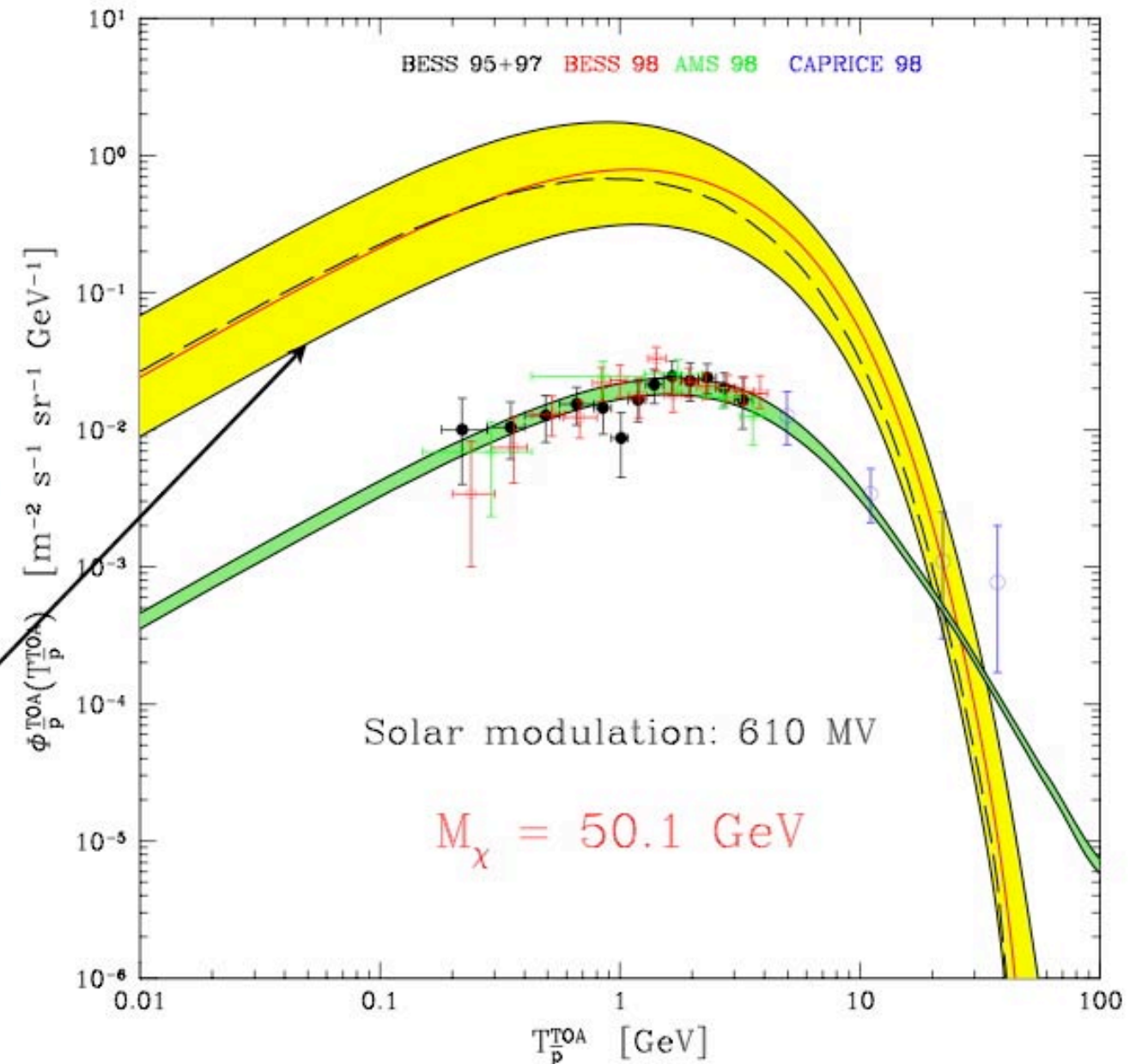


Discussion on De Boer Paper :

J.Edsio DM06



too many
antiprotons



Estimated reaches with Pamela

MSSM

$\tan\beta=55, \text{sgn}(\mu)=+1, A_0=0 \quad m_t=174 \text{ GeV}$

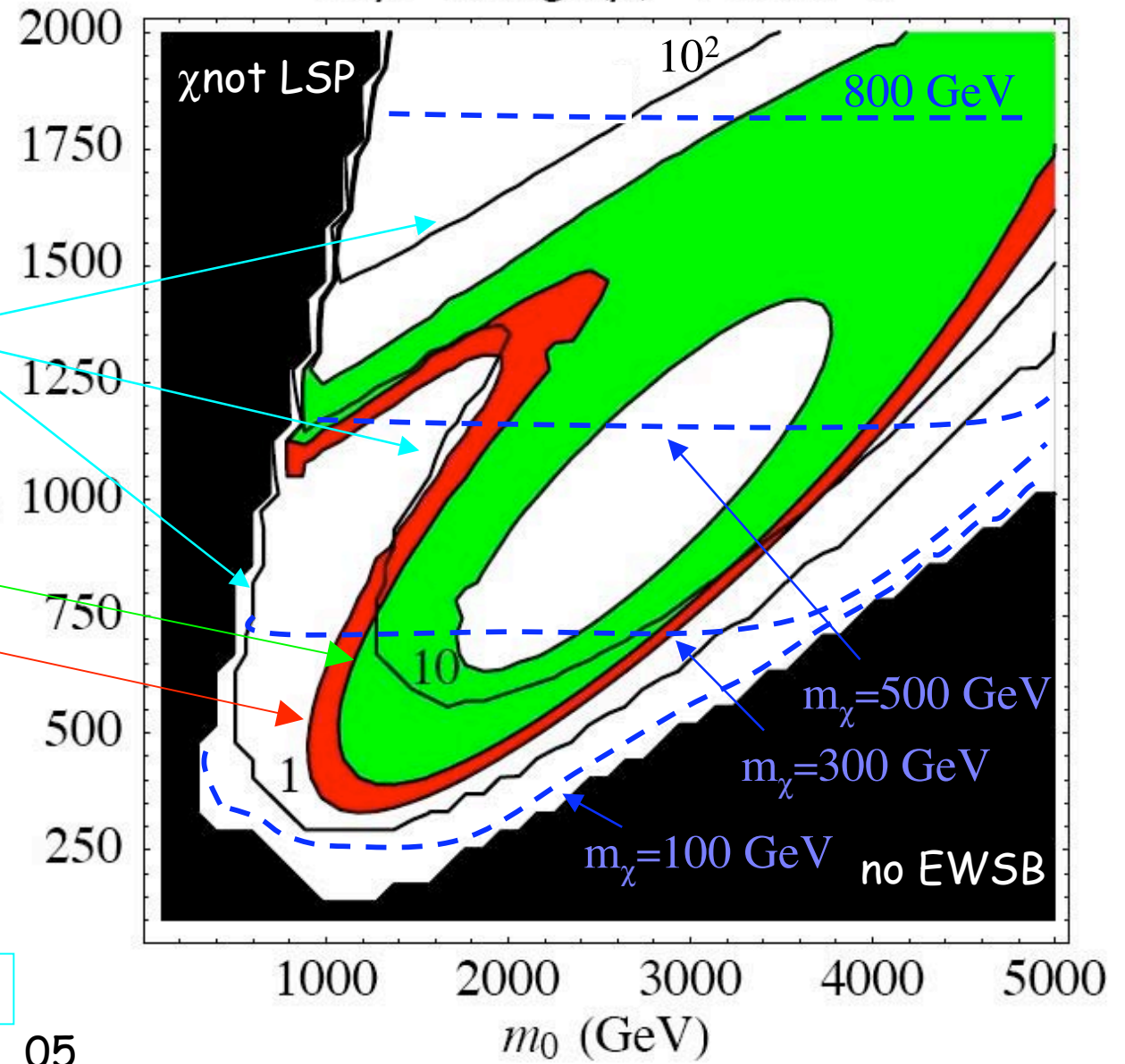
Clumpiness factors f_d needed to disentangle a neutralino induced component in the antiproton flux with PAMELA ($\chi^2 > 1.8$) that still give a good fit of the present data

region where $0.13 < \Omega_{\text{CDM}} h^2 < 0.3$

region where $0.09 < \Omega_{\text{CDM}} h^2 < 0.13$

Equi-clumpiness factor density in respect to a NFW

Equi-neutralino mass lines



astro-ph/0502406, 21 Feb. 05

Review of work in Europe, DM&NP working group meeting, 28/02/06, aldo.morselli@roma2.infn.it



Estimated reaches with GLAST and Pamela

MSSM

Clumpiness factors f_d needed to disentangle a neutralino induced component in the antiproton flux with PAMELA ($\chi^2 > 1.8$) that still give a good fit of the present data.
 Equi-clumpiness factor density in respect to a NFW

GLAST sensitivity (5σ) for a neutralino density N_χ of 10^4 NFW in a $\Delta\Omega = 10^{-5}$ sr region around the galactic center

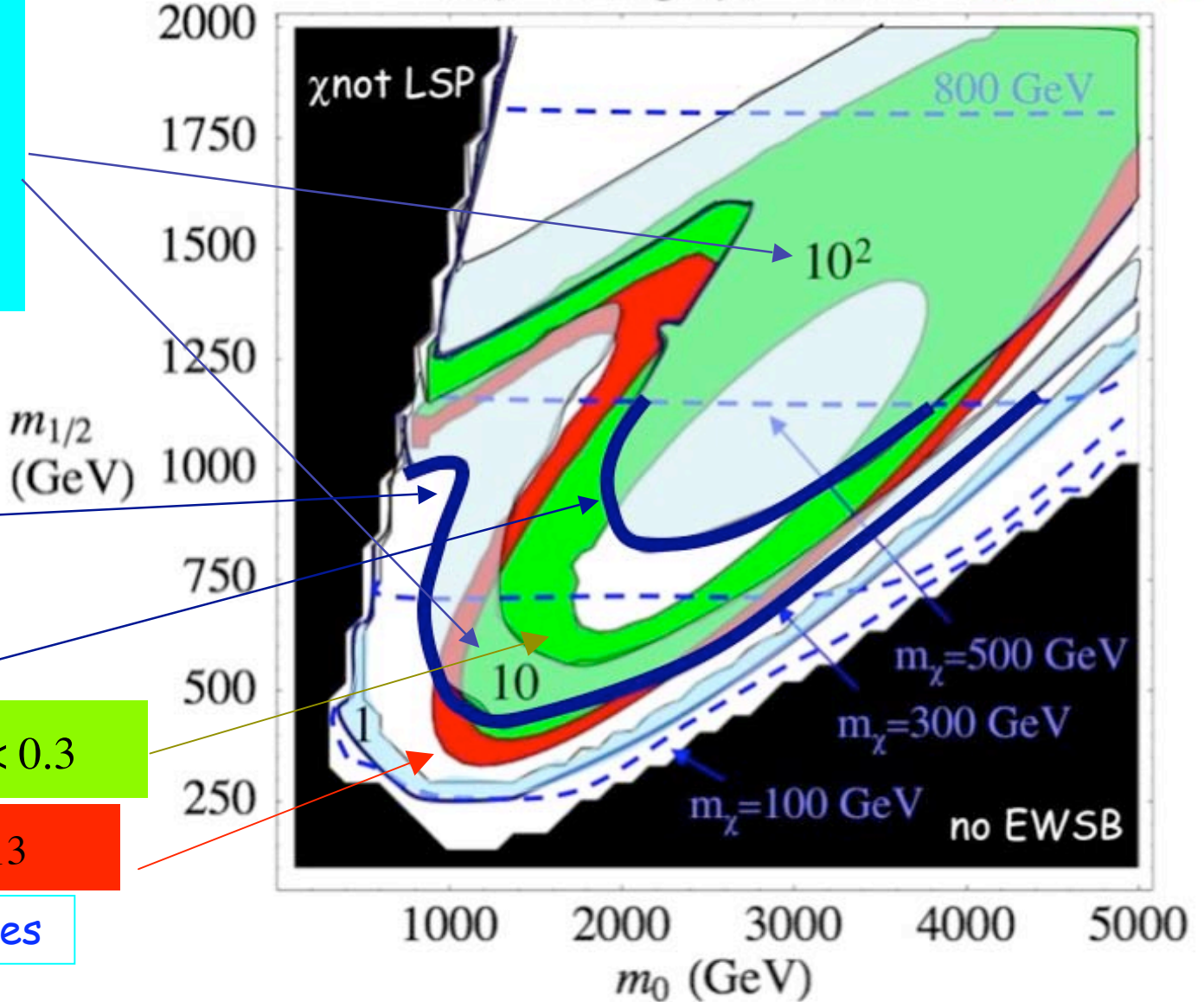
same but for N_χ of 10^5 (clumpiness factor 10)

region where $0.13 < \Omega_{\text{CDM}} h^2 < 0.3$

region where $0.09 < \Omega_{\text{CDM}} h^2 < 0.13$

Equi-neutralino mass lines

$\tan\beta = 55, \text{sgn}(\mu) = +1, A_0 = 0, m_t = 174 \text{ GeV}$



astro-ph/0502406 and astro-ph/0305075

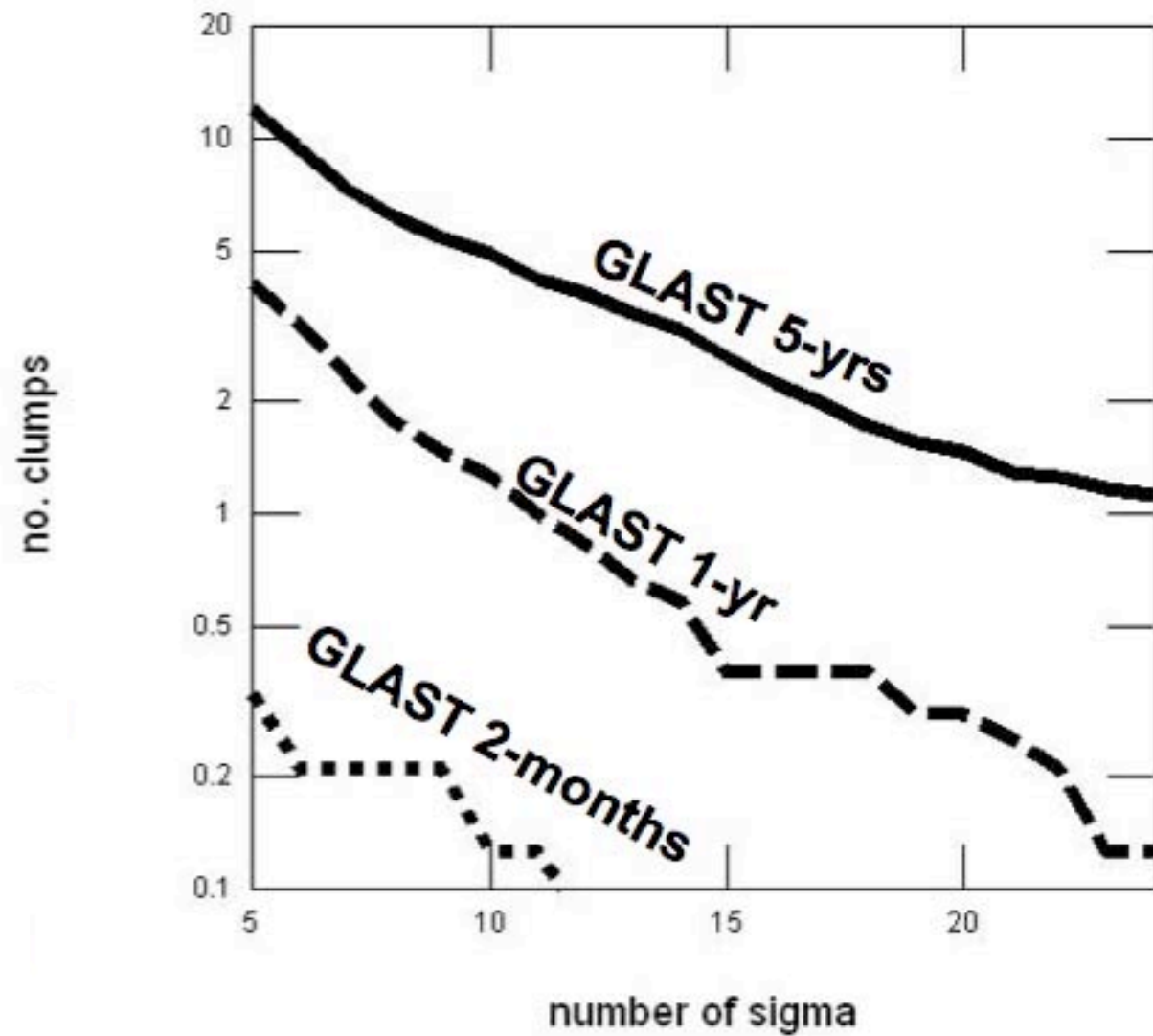
discussion on differences between
De Boer and Galprop group still go on
see: Igor talk



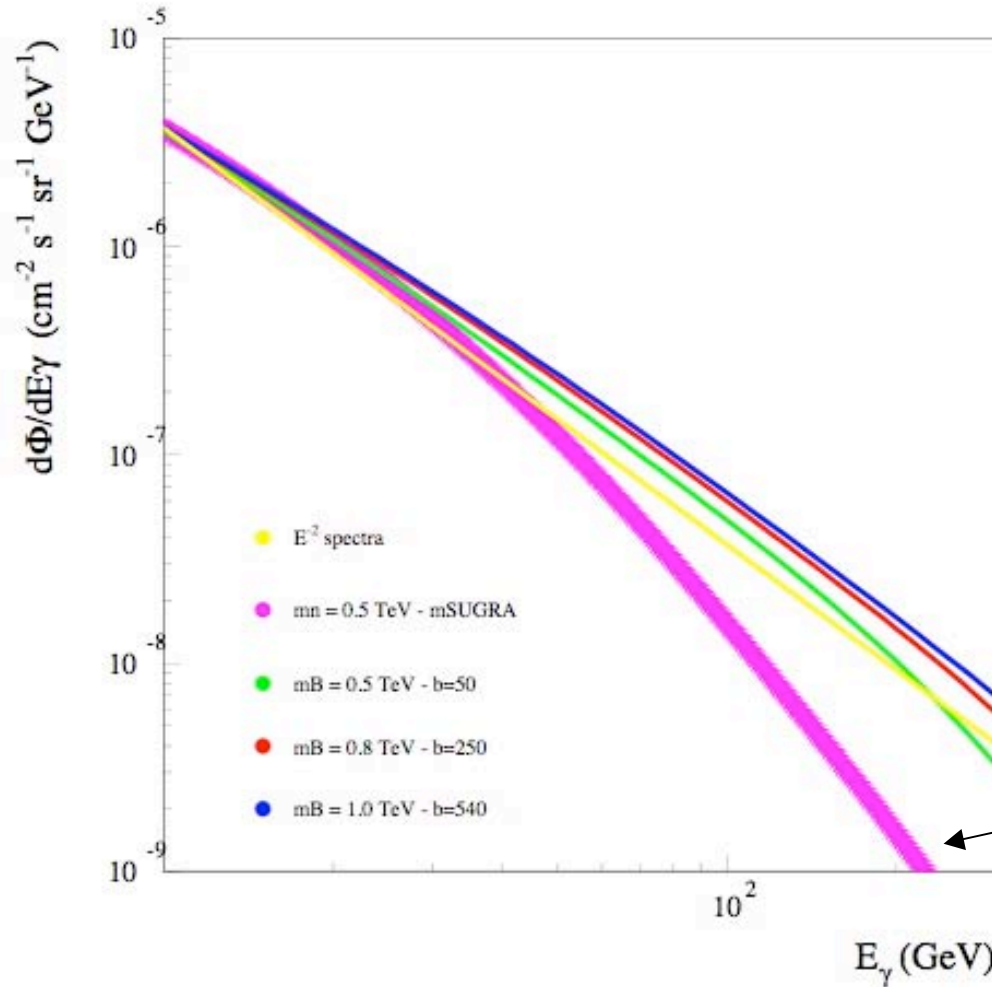
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• Detecting with *GLAST* gamma rays coming from LKP annihilations in the context of the minimal UED models (see *Andrea Lionetto* talk)



Comparison between different spectral shapes

primary and secondary contribution

mSUGRA VS LKP



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