Report from Italy

Aldo Morselli, Andrea Lionetto, Alessandro Cesarini and discussion with Piero Ullio
Total photon spectrum from the galactic center from $\chi\chi$ ann.

MSSM
$A_0 = 0$
$\mu > 0$
$m_t = 174$ GeV
$\tan \beta = 10$

Fixed NFW Halo profile
# of photons from the galactic center from $\chi\chi$ ann.:
an example
two years
$\Delta\Omega=10^{-3}\text{sr}$

- **MSSM**
  - $A_0 = 0$
  - $\mu = 100$
  - $m_t = 174$ GeV
  - $\tan \beta = 10$
  - $m_0 = 800$
  - $m_{1/2} = 3300$

Fixed NFW Halo profile
Problems (as discussed with Ullio)

• the normalization of the background in the galactic centre is unknown
• component from $\pi^0$ decays still not taken in account
Appendix

the following are some parametrizations that we have included in the code

Effective area in funcion of energy is still missing
Energy resolution

\[ Y = M_0 + M_1 x + \ldots + M_8 x^8 + M_9 x^9 \]

| \( M_0 \) | 4.7812 |
| \( M_1 \) | 0.033136 |
| \( M_2 \) | -0.00012462 |
| \( M_3 \) | 1.737e-07 |
| \( R \) | 0.99525 |

Energy Resolution (\%)

E (GeV)

1 10 100 1000
Effective Area versus Angle of Incidence

\[ Y = M_0 + M_1 x + \ldots + M_8 x^8 + M_9 x^9 \]

<table>
<thead>
<tr>
<th>M0</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.99531</td>
<td>-0.00035684</td>
<td>2.3457e-06</td>
<td>0.99914</td>
</tr>
</tbody>
</table>

Effective Area (cm²) vs. \( \phi \)
Angular resolution

Single Photon Direction Accuracy (PSF)

Angular resolution (RMS projected) (Deg)

Angular resolution (rad)

E(GeV)

GLAST 68

Dphi=(0.28*E^(-0.82)+0.025)*1.4

Kinematic limit