

C82 Equilibrium Quality - growing the plasma & Some vmech results for various constraint weights

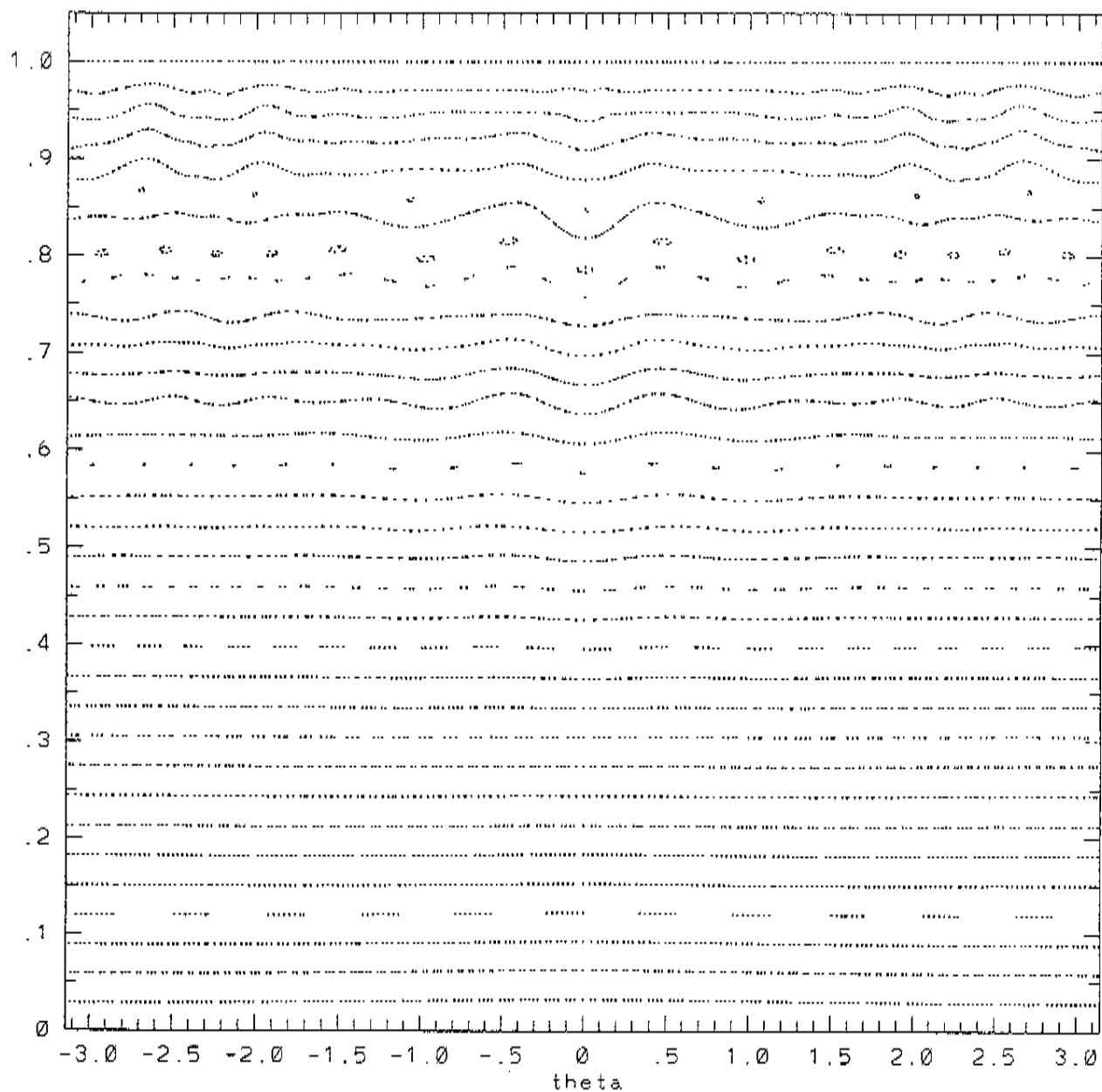
Don Monticello

- **Outline**

- **c82 flux surface**
 - grown from 2.9% beta vmec start to 3.5% beta
 - comparison with hot vmec start at 3.4% beta
- **vmec runs with different weight on constraint equation**

C82 2.9% 3

full connect



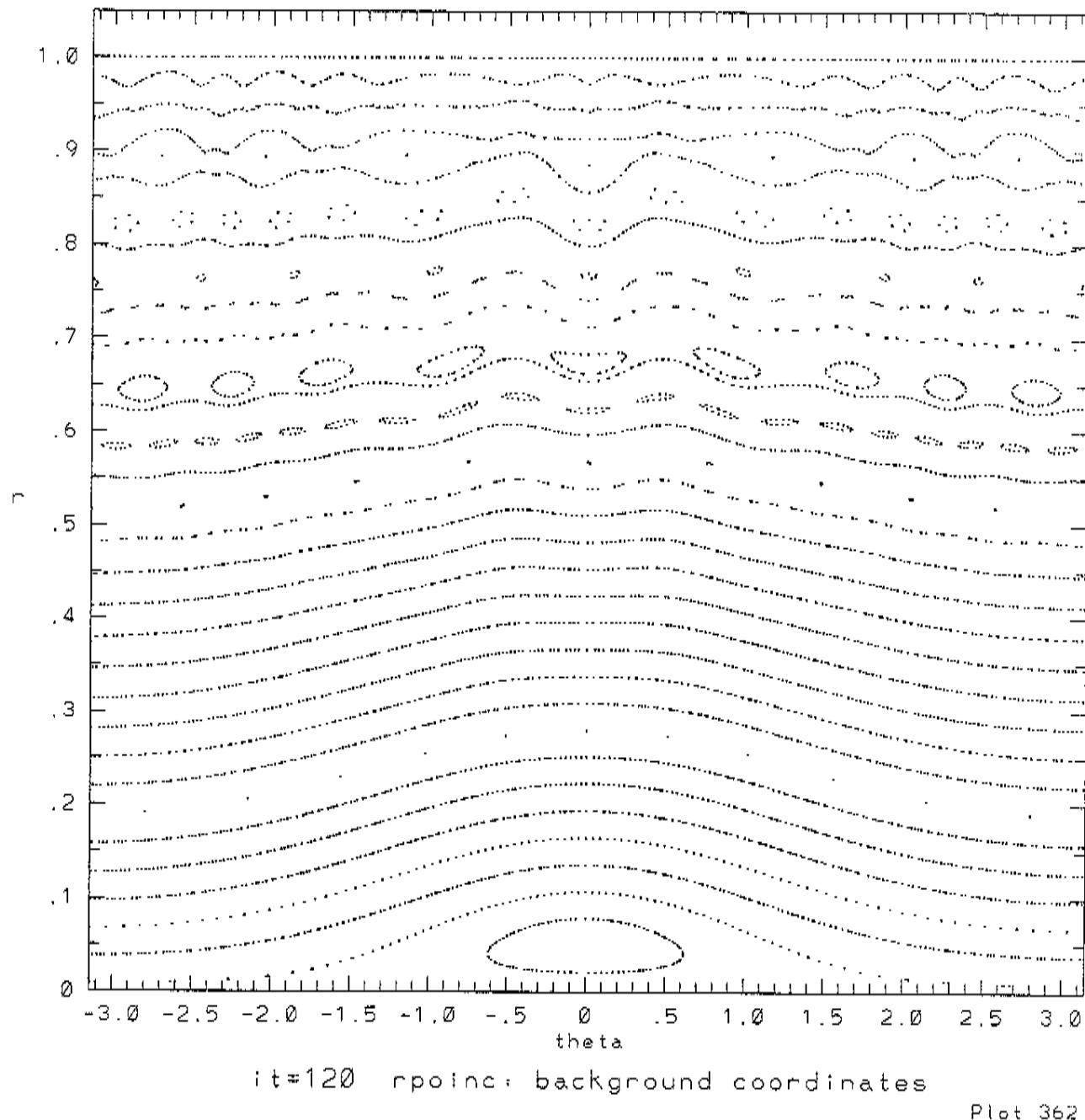
it = 8 npoinc: background coordinates

Plot 145

C 82 3.5% β

Full current

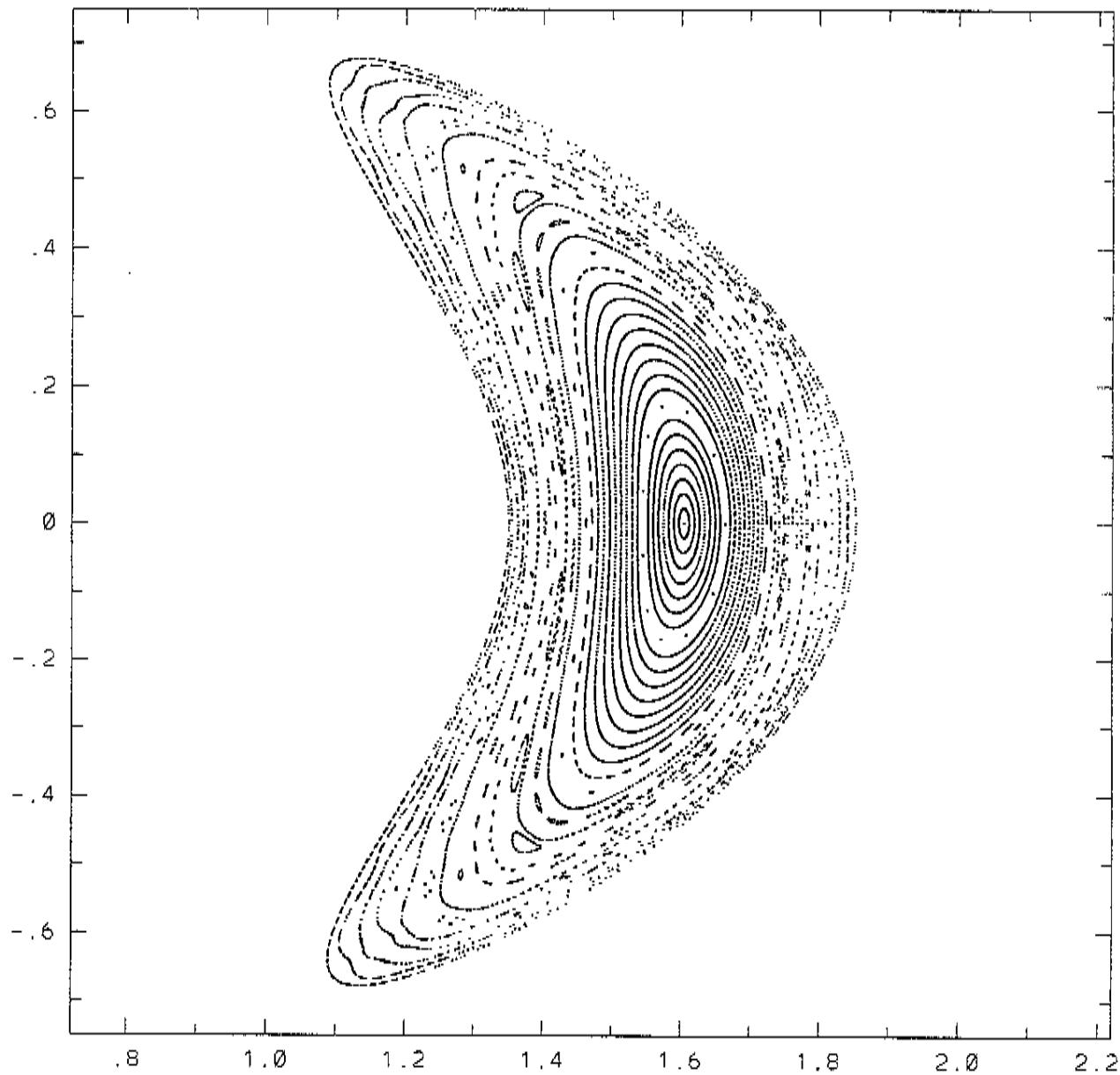
Grown from 2.9% β



C82 3.5% β

Full current

Known from 2.9% β



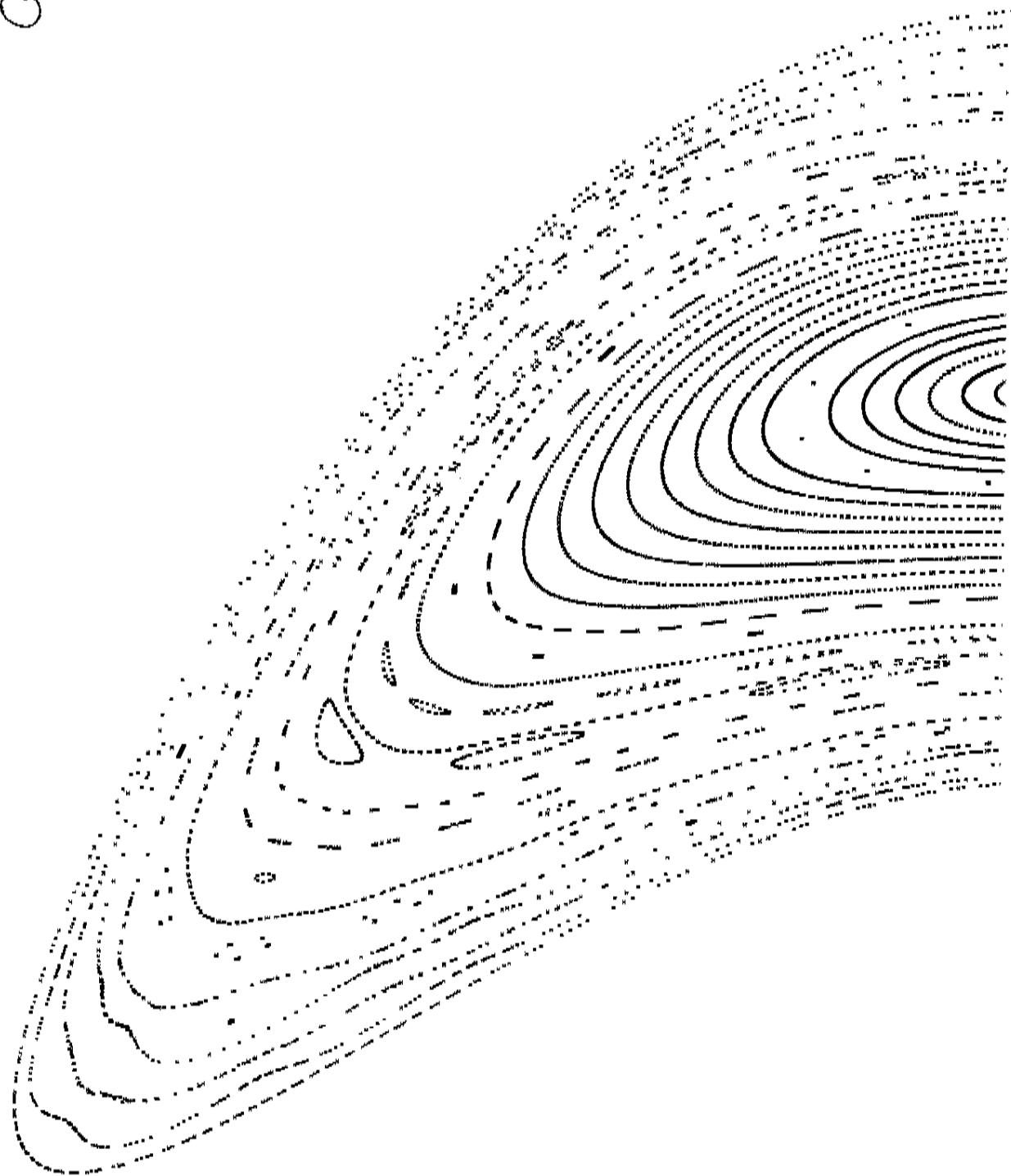
it=120 poincm: cartesian coordinates phi=0

Plot 363

C 82 3.5% β

full current

Grown from 2.9% β

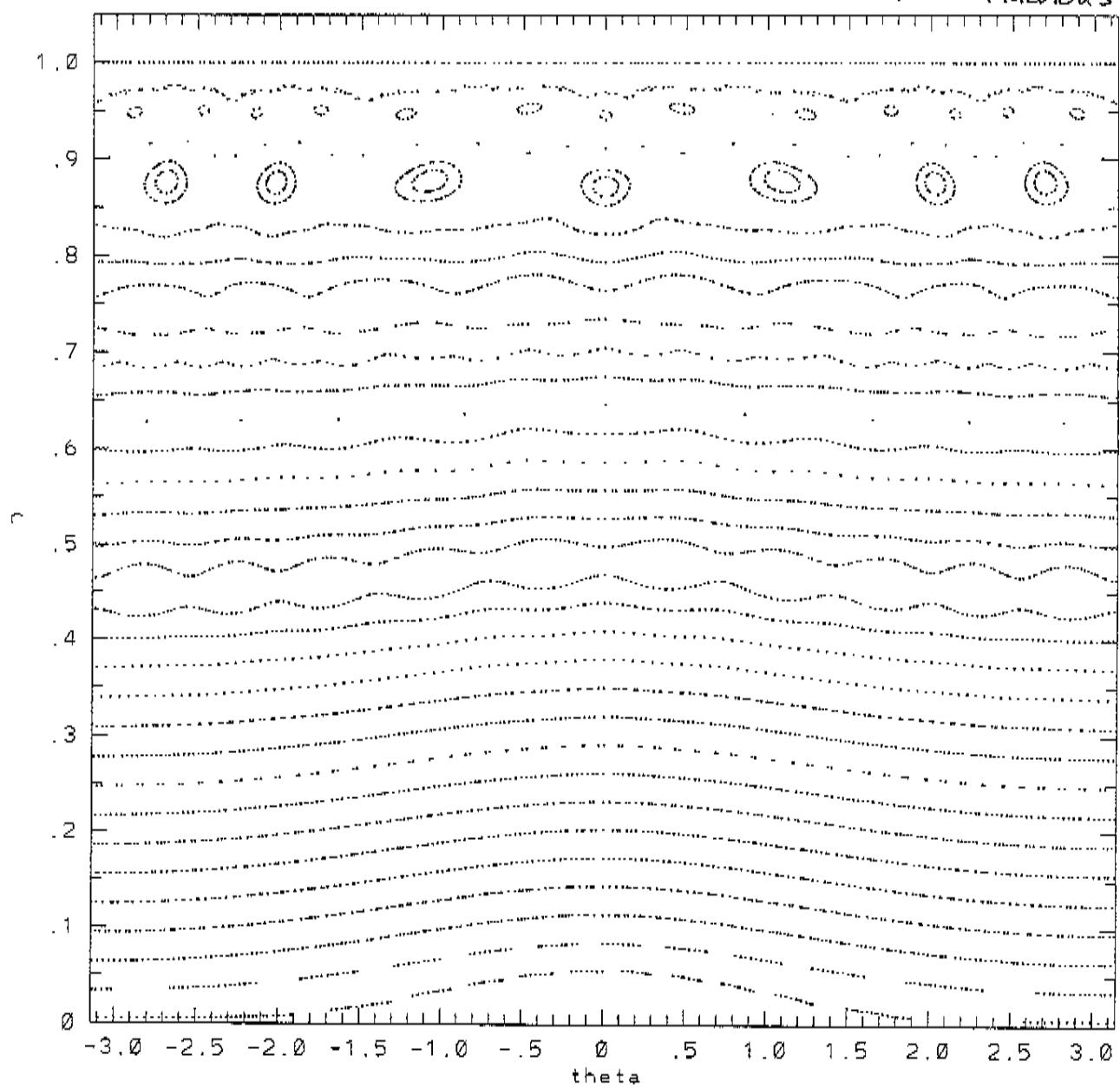


C82 3.5% β

Full Current

Grown from 2.9% β

Not Fully relaxed

 $M=20$ PREVIOUS $M=12$ 

it = 32 rpoints: background coordinates

Plot 286

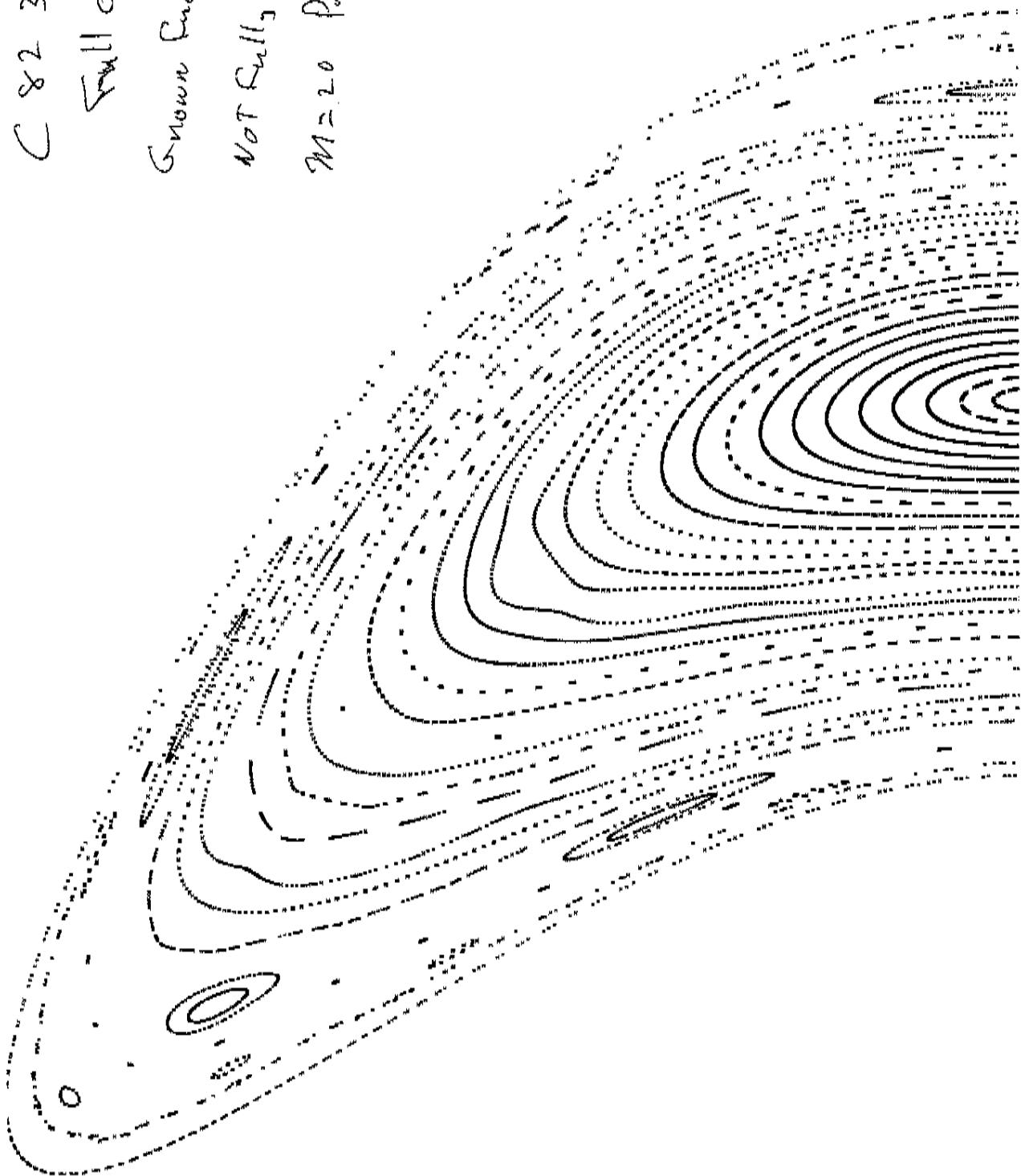
C 82 3.5% C

Full current

Grown from 2.9 $\frac{1}{2}$ C

Not fully relaxed

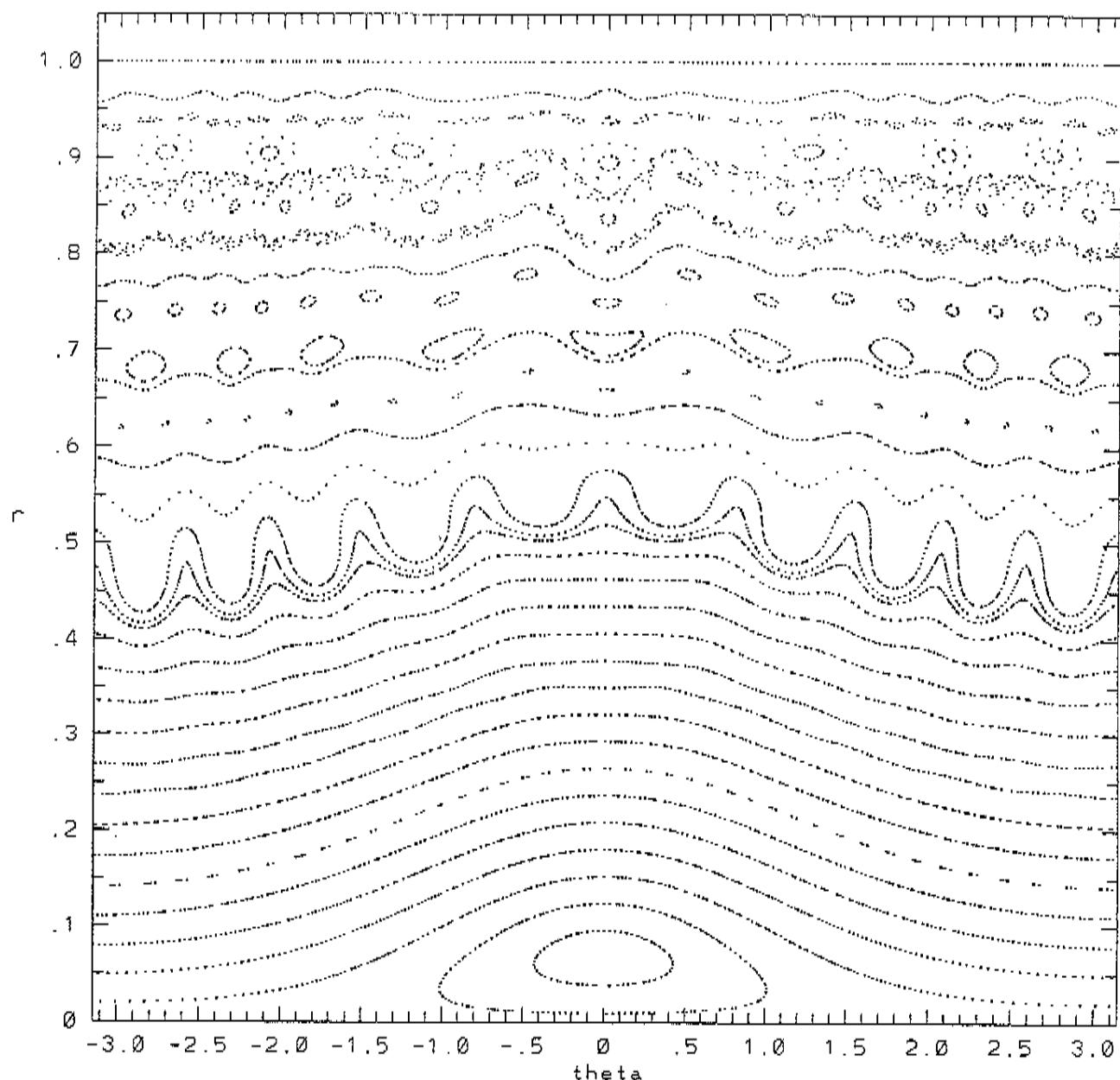
M=2.0 Previous M=1.2



C82 3.4% β

full cement

Not grown

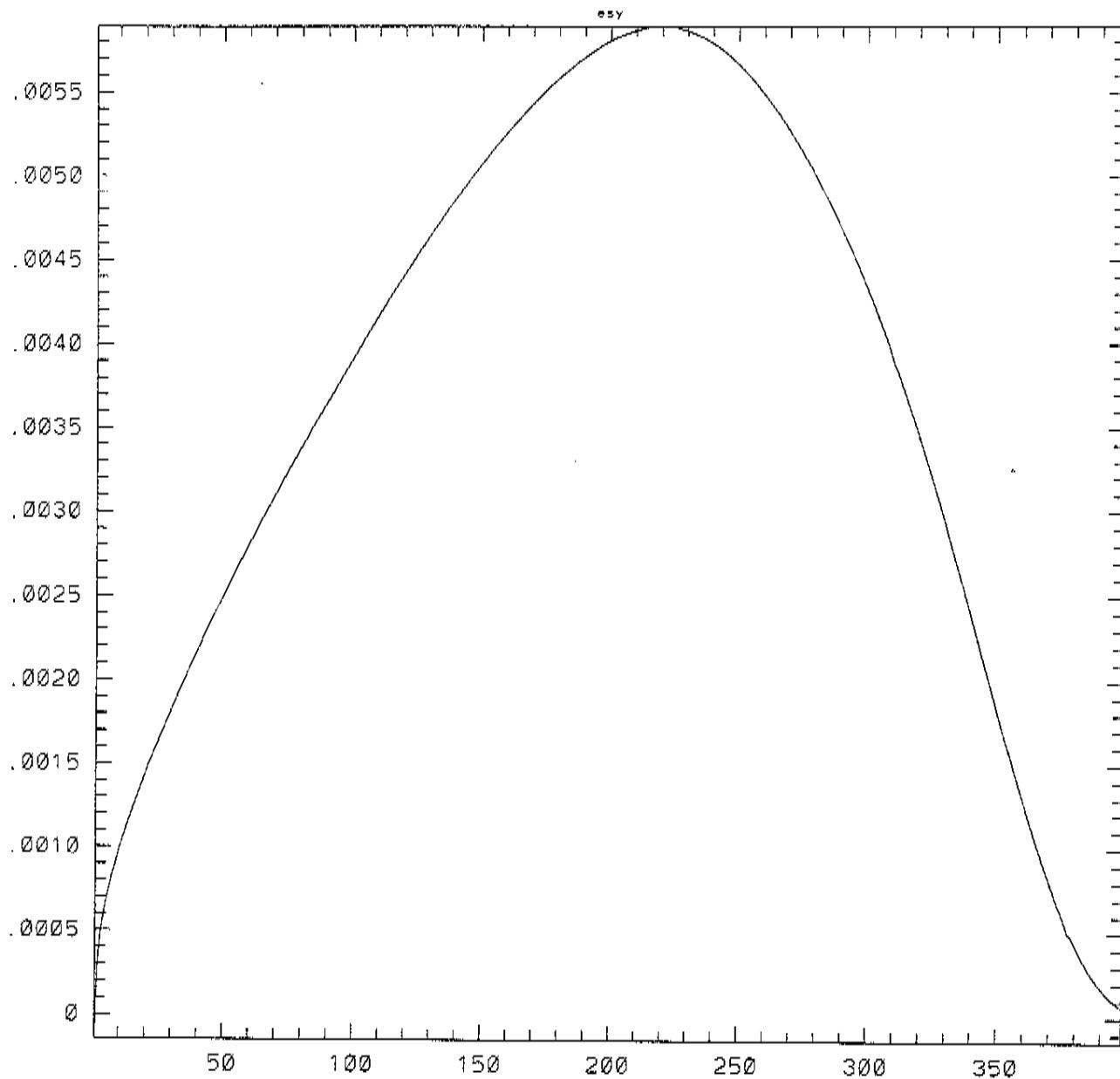


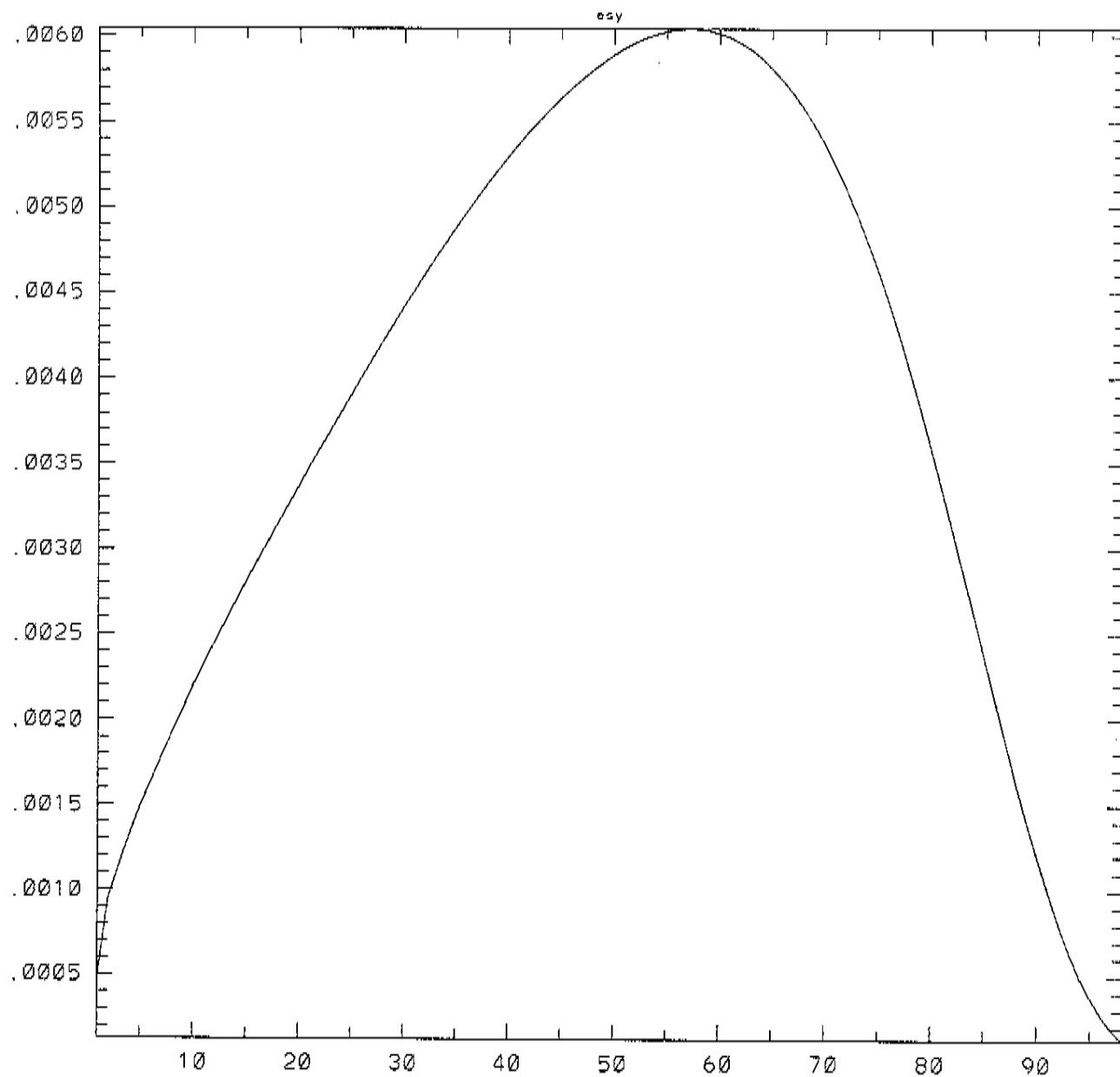
it= 8 rpoint: background coordinates

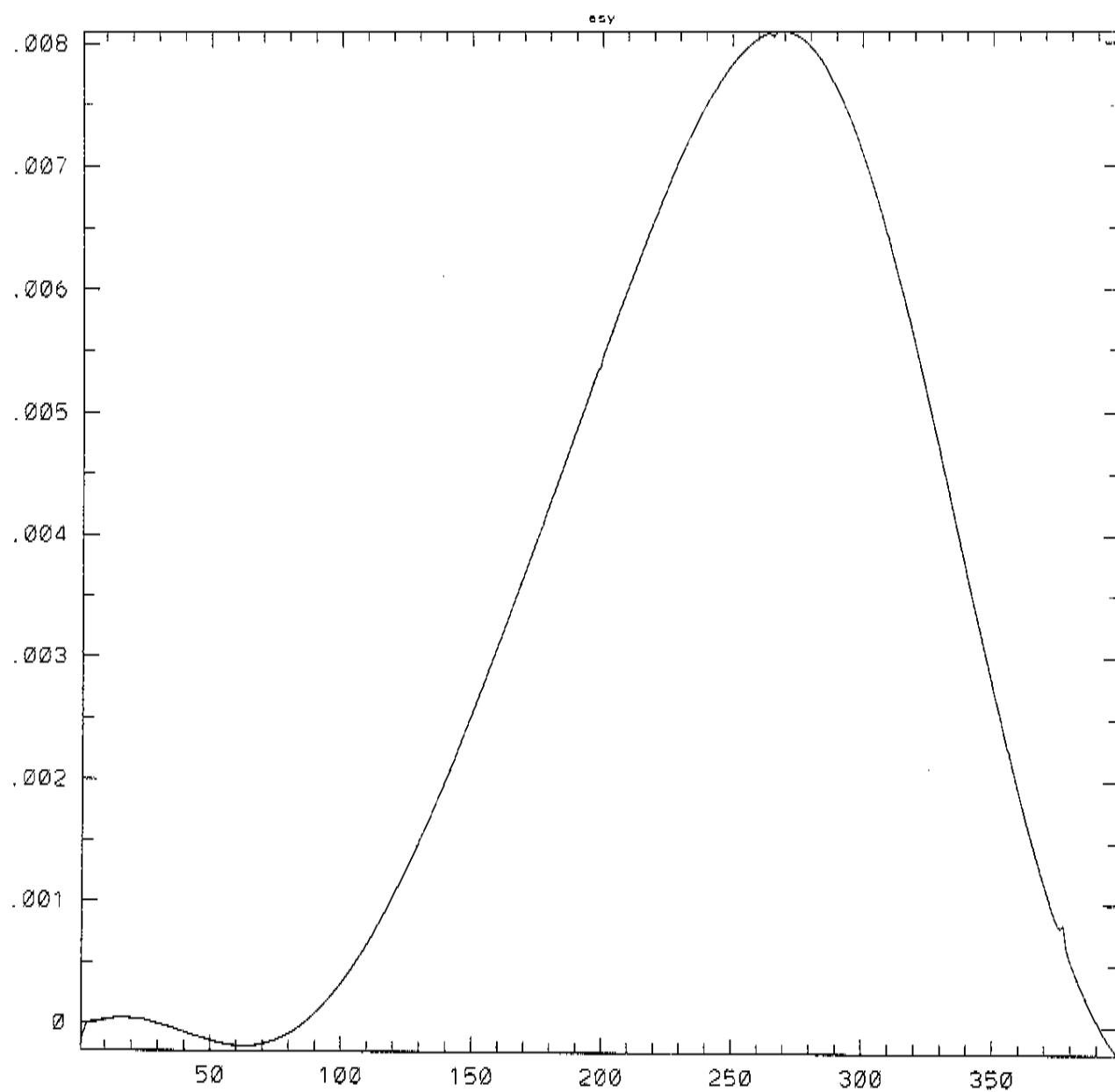
Plot 145

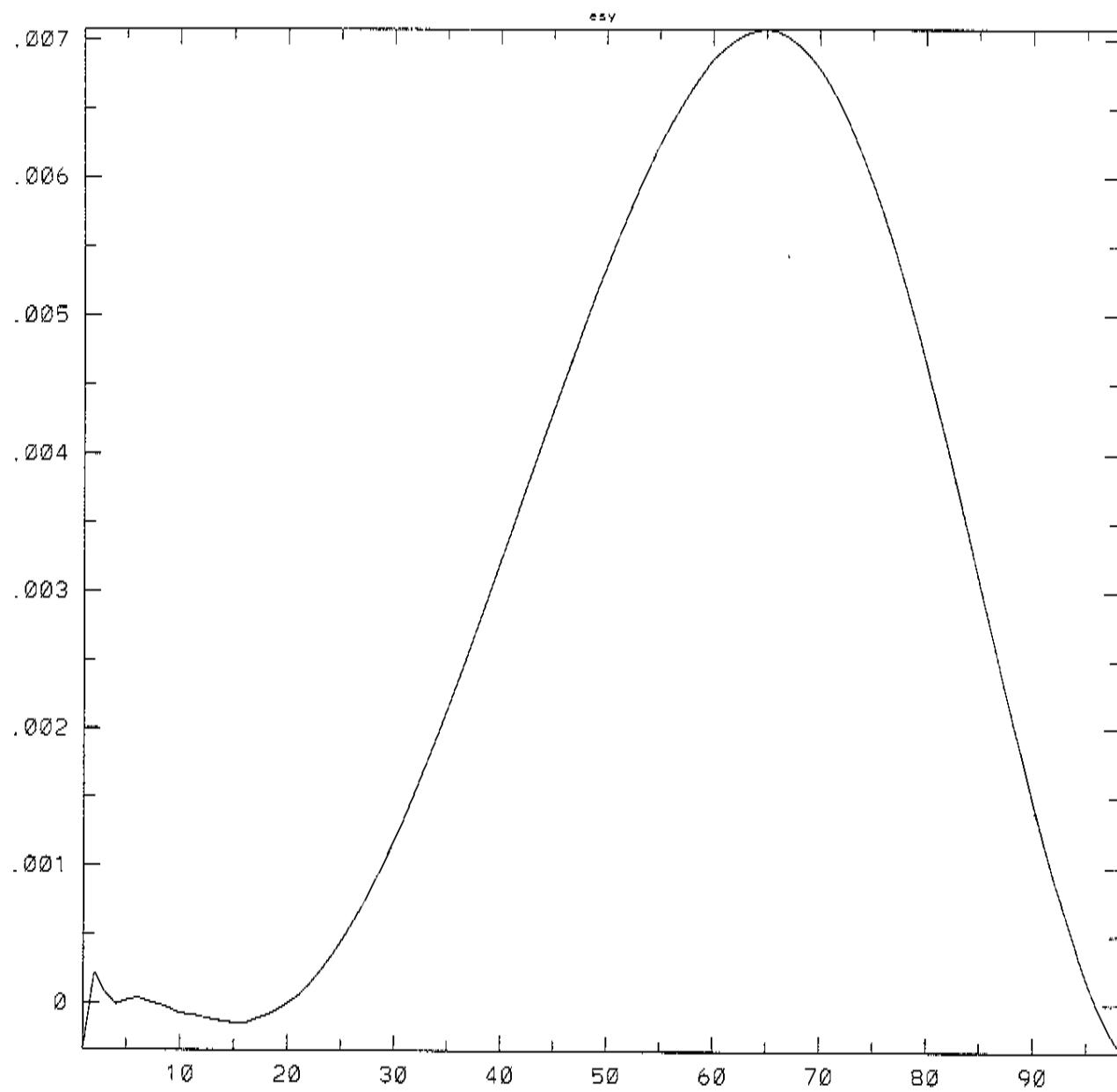
VMEC constraints

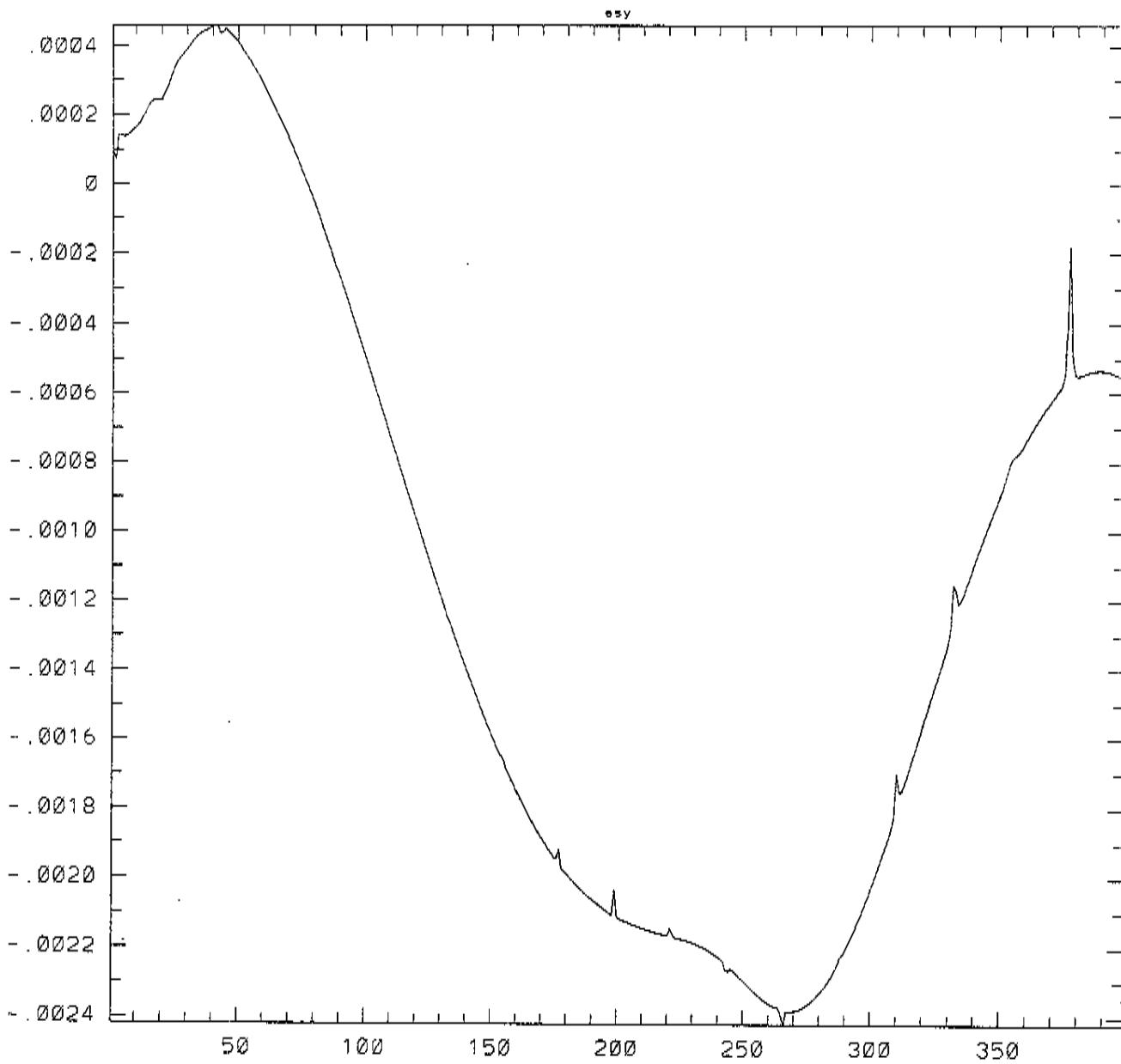
OLD constraint
weight



*VMFC Currents**New constraint weight*

O.L.D.

New

σ_{LD} 

N_{ew}