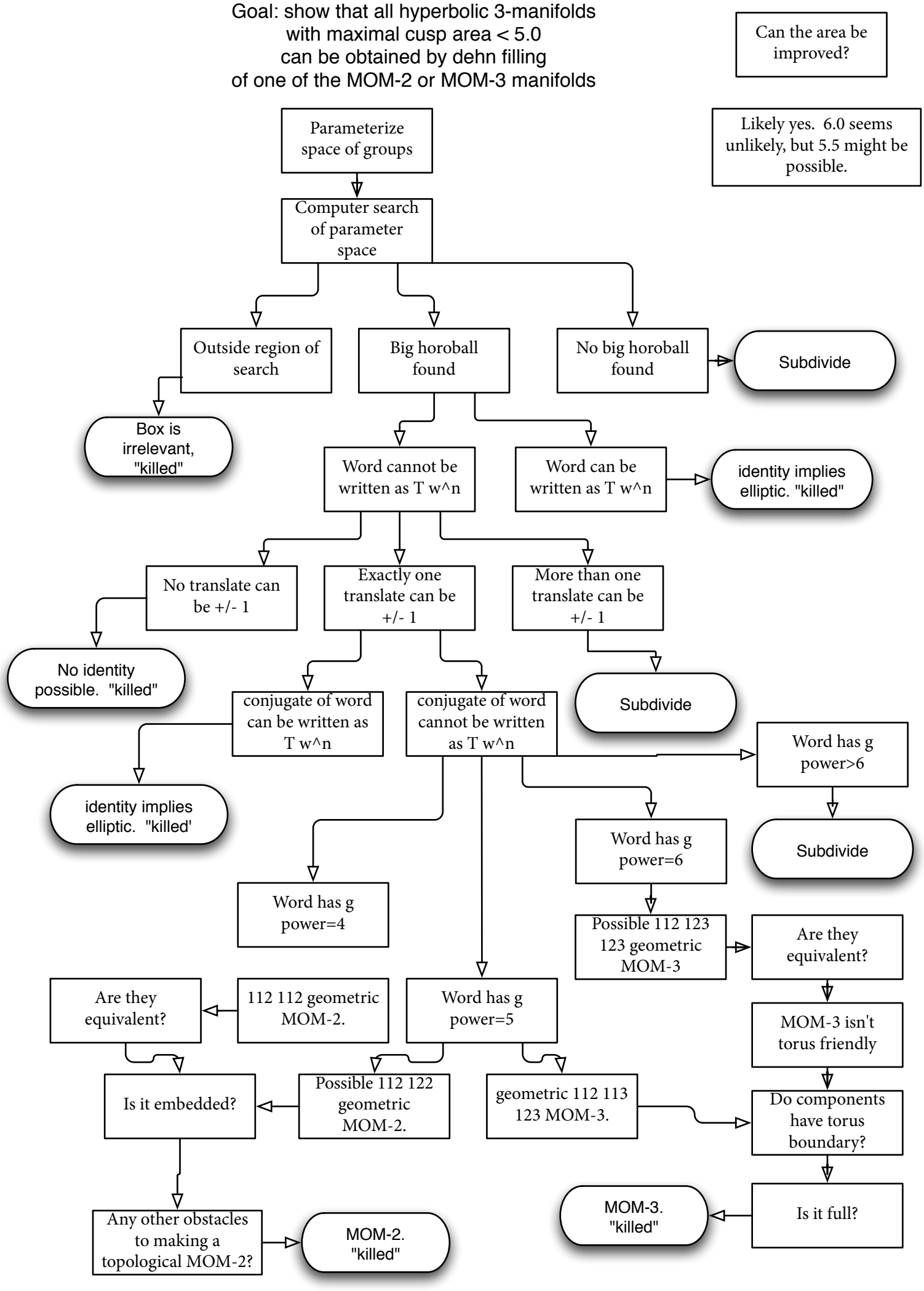
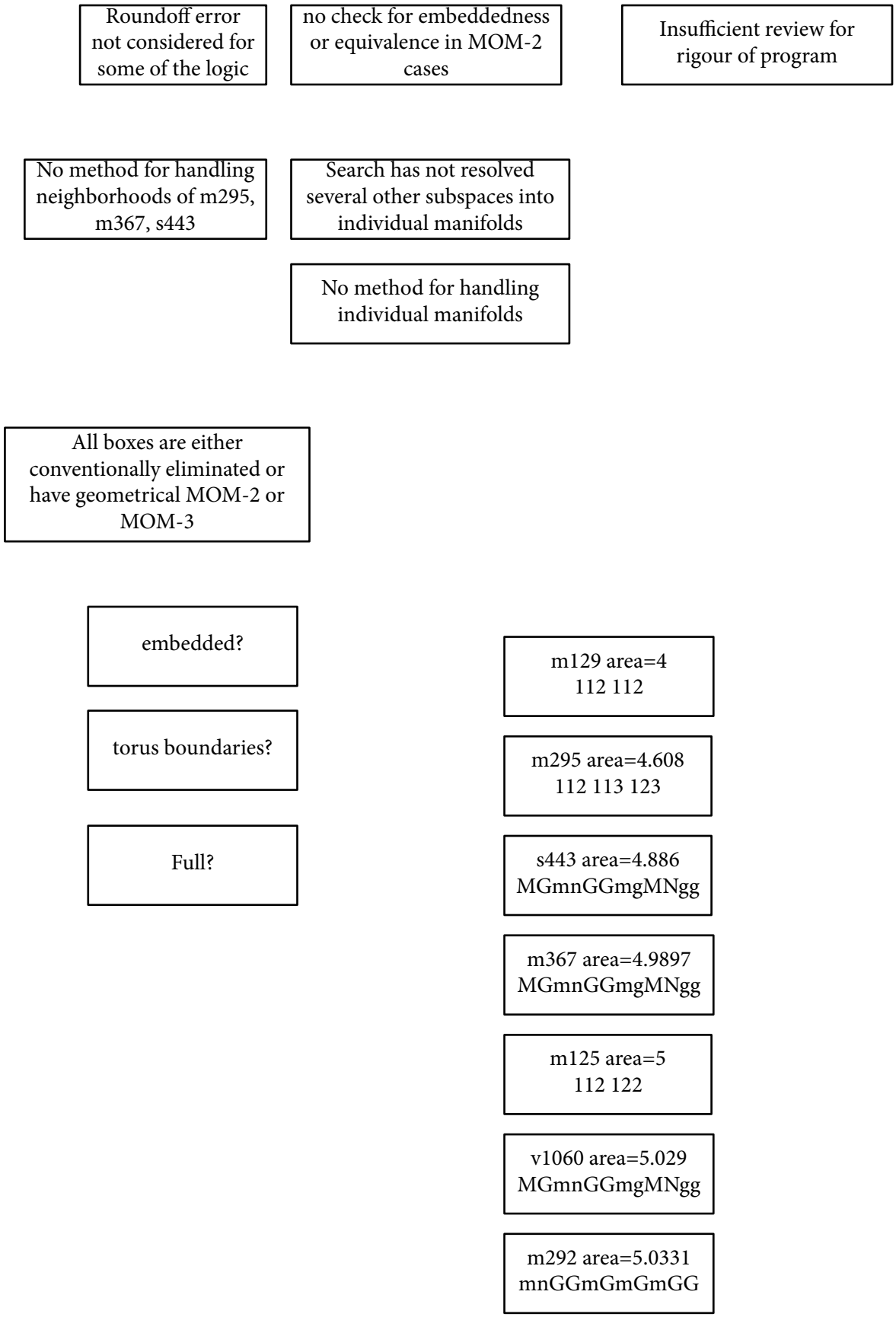

Goal: show that all hyperbolic 3-manifolds with maximal cusp area < 5.0 can be obtained by dehn filling of one of the MOM-2 or MOM-3 manifolds
Can the area be improved?
Likely yes. 6.0 seems unlikely, but 5.5 might be possible.
Parameterize space of groups
Computer search of parameter space
Outside region of search
Big horoball found
No big horoball found
Subdivide
Box is irrelevant, "killed"
Word cannot be written as T w^n
Word can be written as T w^n
identity implies elliptic. "killed"
No translate can be +/- 1
Exactly one translate can be +/- 1
More than one translate can be +/- 1
No identity possible. "killed"
Subdivide
conjugate of word can be written as T w^n
conjugate of word cannot be written as T w^n
identity implies elliptic. "killed'
Word has g power>6
Subdivide
Word has g power=6
Word has g power=4
Possible 112 123 123 geometric MOM-3
Are they equivalent?
Are they equivalent?
112 112 geometric MOM-2.
Word has g power=5
MOM-3 isn't torus friendly
Is it embedded?
Possible 112 122 geometric MOM-2.
geometric 112 113 123 MOM-3.
Do components have torus boundary?
Any other obstacles to making a topological MOM-2?
MOM-2. "killed"
MOM-3. "killed"
Is it full?


Roundoff error not considered for some of the logic
no check for embeddedness or equivalence in MOM-2 cases
Insufficient review for rigour of program
No method for handling neighborhoods of m295, m367, s443
Search has not resolved several other subspaces into individual manifolds
No method for handling individual manifolds
All boxes are either conventionally eliminated or have geometrical MOM-2 or MOM-3
embedded?
torus boundaries?
Full?
m129 area=4
112 112
m295 area=4.608
112 113 123
s443 area=4.886
MGmnGGmgMNgg
m367 area=4.9897
MGmnGGmgMNgg
m125 area=5
112 122
v1060 area=5.029
MGmnGGmgMNgg
m292 area=5.0331
mnGGmGmGmGG