MCparticle

unsigned int npart_count
int _npart
MCptype * _ptype
L4vec _p
L4vec _pend
MCvtx * _vtx
MCvtx * _vtxend
float _pT

MCparticle()
MCparticle(MCparticle * p)
MCparticle(MCptype * ptype, L4vec & P, MCvtx * vtx, MCvtx * vtxend)
~MCparticle()
bool operator <(const MCparticle & y)
bool operator ==(const MCparticle & y)
ostream & operator <<(ostream & os, MCparticle & y)
MCptype * ptype()
float pT()
int npart()
L4vec * vec4ptr()
L4vec & vec4()
L4vec * vec4endptr()
L4vec & vec4end()
bool isOnPrimaryVtx()
bool isStable()
bool isFinalParton()
bool isIntermediateParton()
void set_pend(L4vec & pend)
void set_vtx(MCvtx * vtx)
void set_vtxend(MCvtx * vtxend)
void print(ostream & os)
void prints(ostream & os)
MCvtx * vtx()
MCvtx * vtxend()
int counter()

MCvtx

unsigned int nvtx_count
int _nvtx
L4vec * _vec4
list < MCparticle * > _parents
list < MCparticle * > _daughters

MCvtx()
MCvtx(L4vec * vec4)
~MCvtx()
bool operator ==(const MCvtx & y)
void print(ostream & os)
void prints(ostream & os)
void add_parent(MCparticle * pt)
void add_daughter(MCparticle * pt)
float x ()
float y ()
float z ()
float ct()
int nvtx()
int counter()
L4vec * vec4()
void daughter_list(list < MCparticle * > & daughters)
void parent_list(list < MCparticle * > & parents)
void all_descendants(list < MCparticle * > & listp)
MCparticle * aparent()
MCparticle * adaughter()

MCptype

string _name
int _isaId
float _charge
float _mass
float _ctau

MCptype()
MCptype(string & name, int isaId, float charge, float mass, float ctau)
~MCptype()
ostream & operator <<(ostream & os, MCptype & y)
void print(ostream & os)
string name()
int isaId()
float charge()
float mass()
float ctau()
bool isLepton()
bool isChargedLepton()
bool isHadron()
bool isEm()
bool isPrompt()
bool isShortLived()

GenRandom

GenRandom()

~GenRandom()

void gaussian(float & x, float & y)

void set_seed(const long & seed)

float ranf()

MCevt

---

int _evtid

unsigned int event_count

list < MCparticle * > _listp

list < MCvtx * > _listv

list < L4vec * > _listvec4

MCevt(int evtid, list < MCvtx * > & listv, list < MCparticle * > & listp, list < L4vec * > & listvec4)

MCevt(int evtid, list < MCvtx * > & listv)

MCevt(int evtid, list < MCparticle * > & listp)

~MCevt()

void particleList(list < MCparticle * > & list1)

void vertexList(list < MCvtx * > & list1)

int eventId()

void print(ostream & os)

void prints(ostream & os)

void remove()

void makeEvent(list < MCvtx * > & listv)

void makeEvent(list < MCparticle * > & listp)

MCjet

---

int njet_count

int _njet

L4vec _vec4

float _pT

list < MCparticle * > _listp

MCjet()

MCjet(L4vec & vec4, list < MCparticle * > & listp)

~MCjet()

bool operator ==(const MCjet & y)

bool operator <(const MCjet & y)

void print(ostream & os)

void prints(ostream & os)

float pT()

const L4vec * vec4ptr()

int njet()

int counter()

void members(list < MCparticle * > & listp)

MCjetConeAlgo1

---

float _conesize

float _ETseed

float _ETmin

list < MCjet * > _ljets

MCjetConeAlgo1(float & conesize, float & ETseed, float & ETmin)

~MCjetConeAlgo1()

void makeJets(list < MCparticle * > & lin)

void jetList(list < MCjet * > & ljets)

void remove()

L4vec

---

float _E

float _px

float _py

float _pz

L4vec()

L4vec(float f1, float f2, float f3, float f4)

~L4vec()

bool operator ==(const L4vec & y)

L4vec operator +(const L4vec & y1, const L4vec & y2)

L4vec operator +=(L4vec & y1)

L4vec operator -(const L4vec & y1, const L4vec & y2)

L4vec operator *(const float a, const L4vec & y)

L4vec operator *(const L4vec & y, const float a)

L4vec operator /(const L4vec & y, const float a)

ostream & operator <<(ostream & os, L4vec & y)

float dot(const L4vec & y1)

void print(ostream & os)

float px()

float py()

float pz()

float E ()

float pT()

float p ()

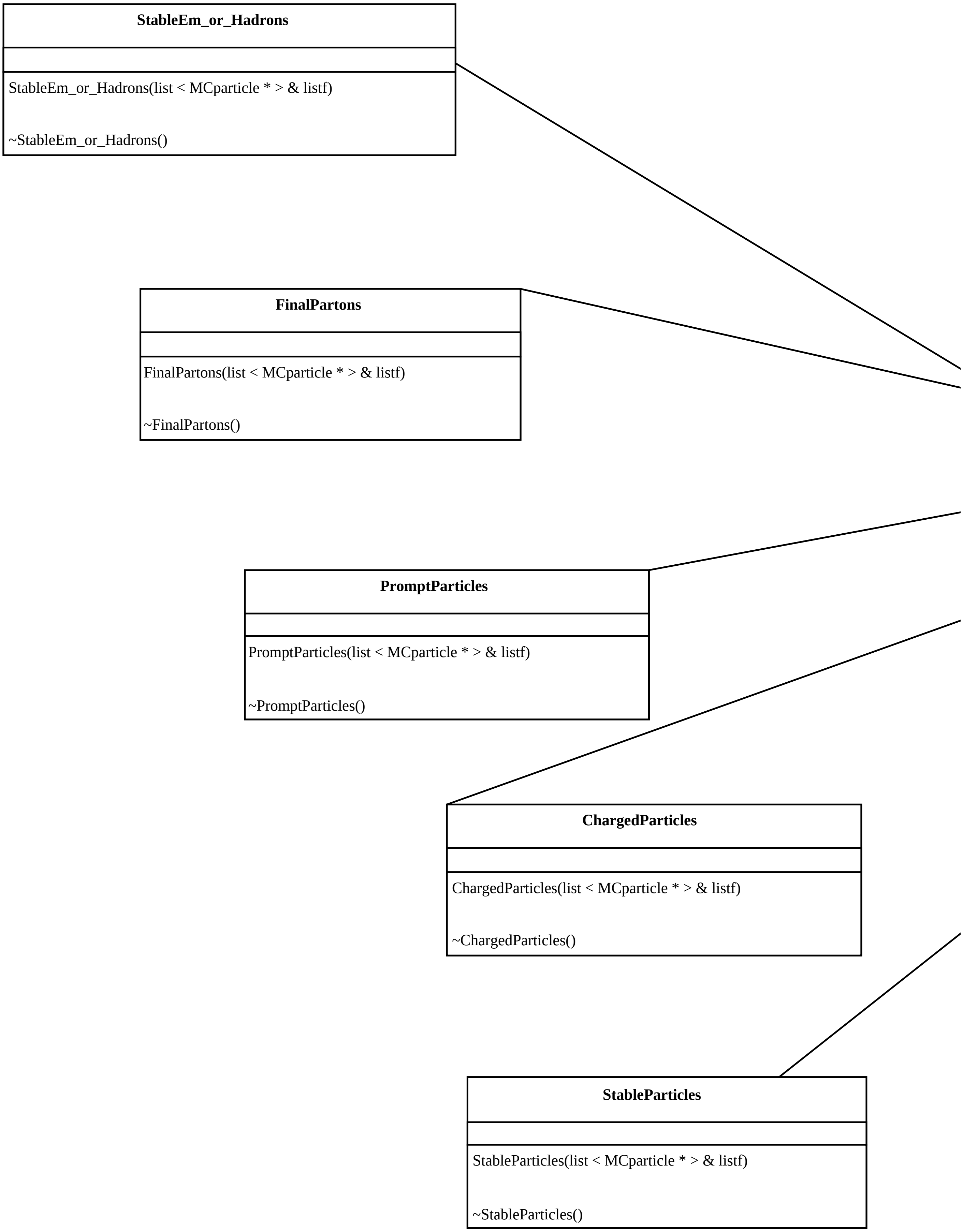
float phi()

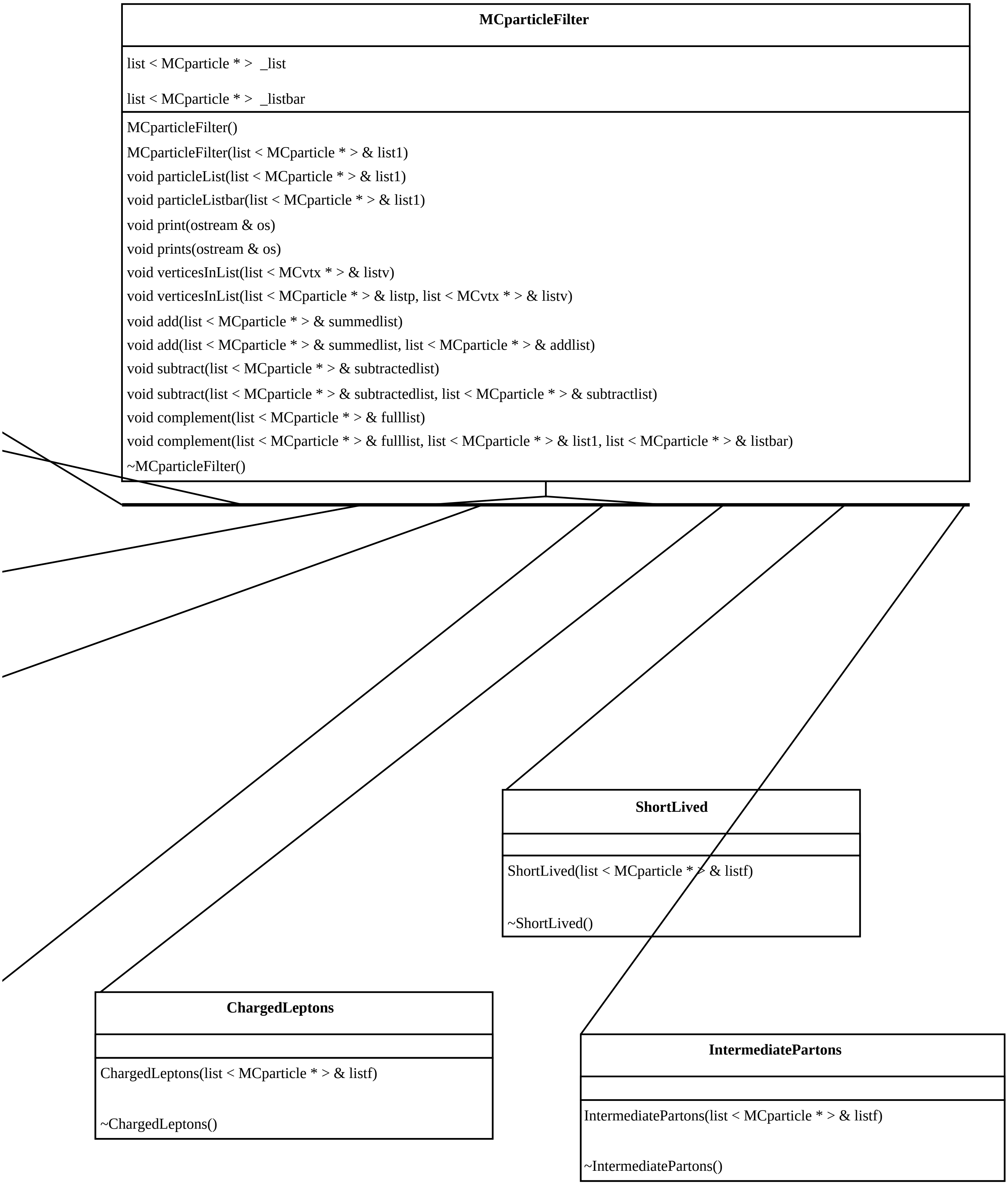
float theta()

float mass2()

float eta()

float mass()


StableEm_or_Hadrons
StableEm_or_Hadrons(list < MCparticle * > & listf)
~StableEm_or_Hadrons()
FinalPartons
FinalPartons(list < MCparticle * > & listf)
~FinalPartons()
PromptParticles
PromptParticles(list < MCparticle * > & listf)
~PromptParticles()
ChargedParticles
ChargedParticles(list < MCparticle * > & listf)
~ChargedParticles()
StableParticles
StableParticles(list < MCparticle * > & listf)
~StableParticles()


MCparticleFilter
list < MCparticle * > _list
list < MCparticle * > _listbar
MCparticleFilter()
MCparticleFilter(list < MCparticle * > & list1)
void particleList(list < MCparticle * > & list1)
void particleListbar(list < MCparticle * > & list1)
void print(ostream & os)
void prints(ostream & os)
void verticesInList(list < MCvtx * > & listv)
void verticesInList(list < MCparticle * > & listp, list < MCvtx * > & listv)
void add(list < MCparticle * > & summedlist)
void add(list < MCparticle * > & summedlist, list < MCparticle * > & addlist)
void subtract(list < MCparticle * > & subtractedlist)
void subtract(list < MCparticle * > & subtractedlist, list < MCparticle * > & subtractlist)
void complement(list < MCparticle * > & fulllist)
void complement(list < MCparticle * > & fulllist, list < MCparticle * > & list1, list < MCparticle * > & listbar)
~MCparticleFilter()
ShortLived
ShortLived(list < MCparticle * > & listf)
~ShortLived()
ChargedLeptons
ChargedLeptons(list < MCparticle * > & listf)
~ChargedLeptons()
IntermediatePartons
IntermediatePartons(list < MCparticle * > & listf)
~IntermediatePartons()

MCptypeMaker

map < int, MCptype *, less < int > > ptypemap

MCptypeMaker()

~MCptypeMaker()

MCptype * ptype(const int id)

MCgenByHand

ostream * _os

istream * _is

bool _fromScreen

MCgenByHand()

MCgenByHand(MCgenInterPoint * & ptgip)

MCgenByHand(MCgenInterPoint & gip)

~MCgenByHand()

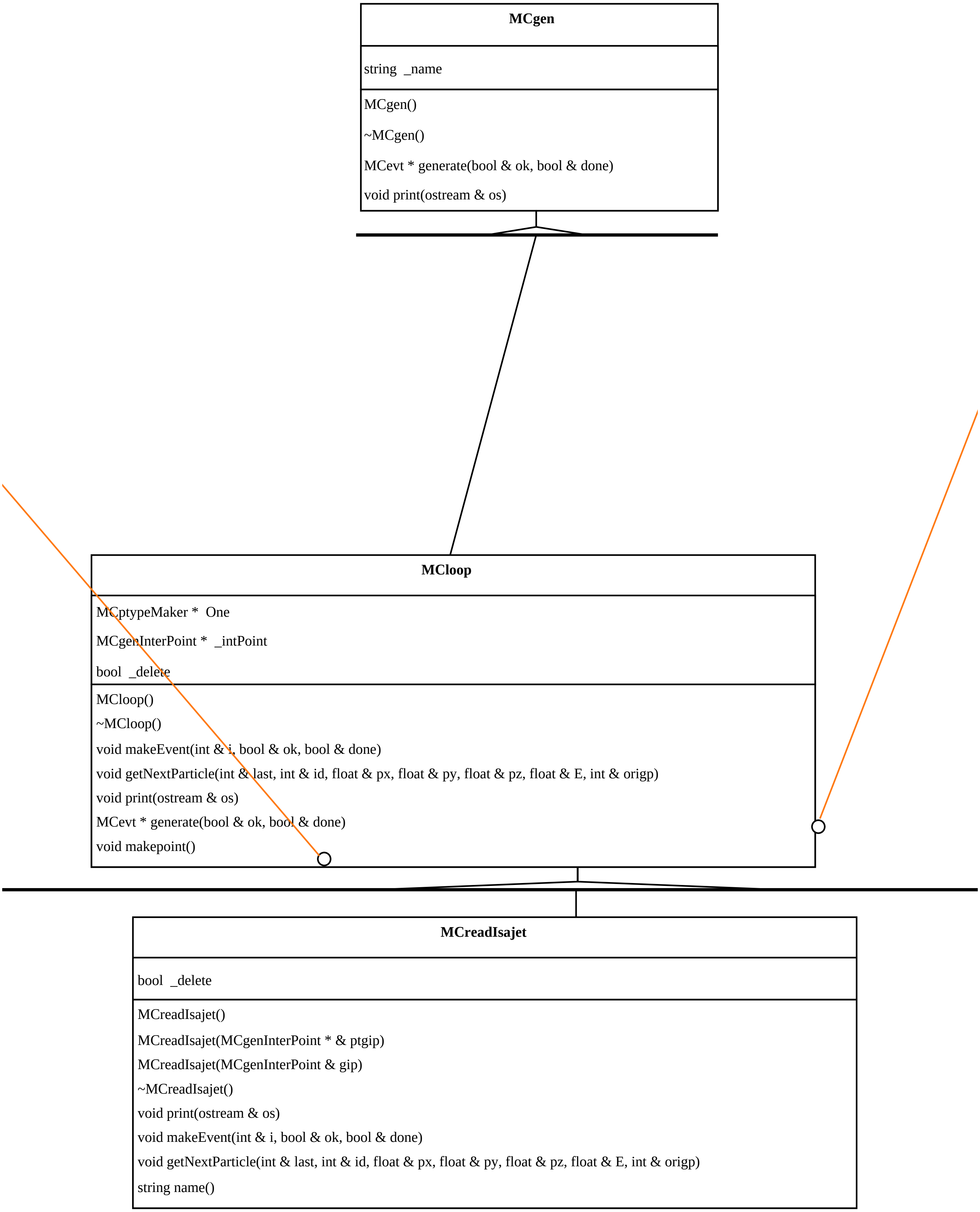
void print(ostream & os)

void makeEvent(int & i, bool & ok, bool & done)

void getNextParticle(int & last, int & id, float & px, float & py, float & pz, float & E, int & origp)

void setStreams(ostream * os, istream * is)

string name()


MCgen
string _name
MCgen()
~MCgen()
MCevt * generate(bool & ok, bool & done)
void print(ostream & os)
MCloop
MCptypeMaker * One
MCgenInterPoint * _intPoint
bool _delete
MCloop()
~MCloop()
void makeEvent(int & i, bool & ok, bool & done)
void getNextParticle(int & last, int & id, float & px, float & py, float & pz, float & E, int & origp)
void print(ostream & os)
MCevt * generate(bool & ok, bool & done)
void makepoint()
MCreadIsajet
bool _delete
MCreadIsajet()
MCreadIsajet(MCgenInterPoint * & ptgip)
MCreadIsajet(MCgenInterPoint & gip)
~MCreadIsajet()
void print(ostream & os)
void makeEvent(int & i, bool & ok, bool & done)
void getNextParticle(int & last, int & id, float & px, float & py, float & pz, float & E, int & origp)
string name()

MCgenInterPoint

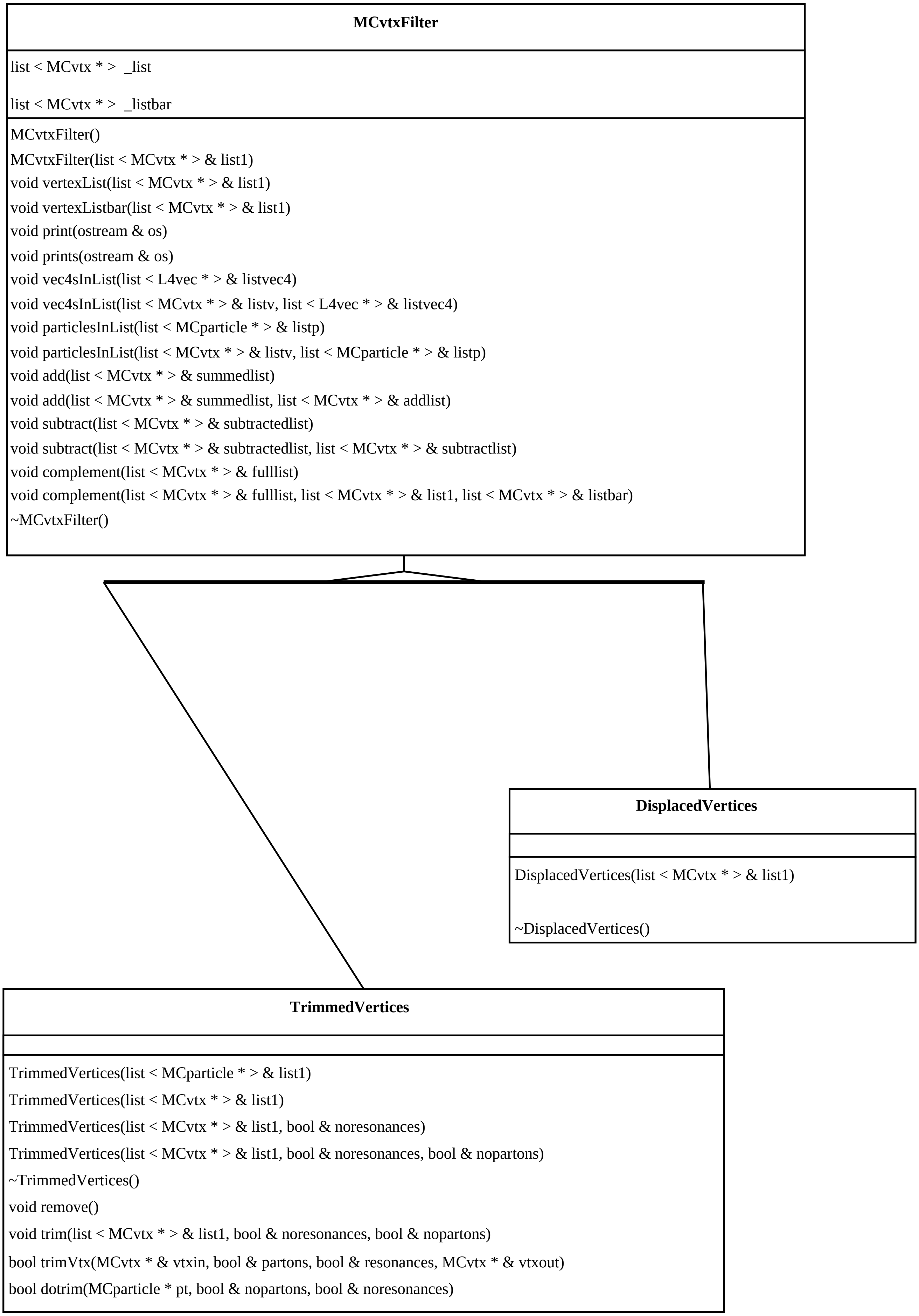
float _x
float _y
float _z
float _sigx
float _sigy
float _sigz
float _xoff
float _yoff
float _zoff
float _xslope
float _yslope
bool _xyzset

MCgenInterPoint()
MCgenInterPoint(float & xoff, float & yoff, float & zoff, float & sigx, float & sigy, float & sigz, float & xslope, float & yslope)
~MCgenInterPoint()
void genxyz(float & x, float & y, float & z)
void getxyz(float & x, float & y, float & z)
void print(ostream & os)
void setxyz(float & x, float & y, float & z)
void setOffsets(float & xoff, float & yoff, float & zoff)
void setSigxyz(float & sigx, float & sigy, float & sigz)
void setSlopes(float & xslope, float & yslope)

MCgenIsajet

bool _delete

MCgenIsajet()
MCgenIsajet(MCgenInterPoint * & ptgip)
MCgenIsajet(MCgenInterPoint & gip)
~MCgenIsajet()
void print(ostream & os)
void makeEvent(int & i, bool & ok, bool & done)
void getNextParticle(int & last, int & id, float & px, float & py, float & pz, float & E, int & origp)
string name()


MCvtxFilter
list < MCvtx * > _list
list < MCvtx * > _listbar
MCvtxFilter()
MCvtxFilter(list < MCvtx * > & list1)
void vertexList(list < MCvtx * > & list1)
void vertexListbar(list < MCvtx * > & list1)
void print(ostream & os)
void prints(ostream & os)
void vec4sInList(list < L4vec * > & listvec4)
void vec4sInList(list < MCvtx * > & listv, list < L4vec * > & listvec4)
void particlesInList(list < MCparticle * > & listp)
void particlesInList(list < MCvtx * > & listv, list < MCparticle * > & listp)
void add(list < MCvtx * > & summedlist)
void add(list < MCvtx * > & summedlist, list < MCvtx * > & addlist)
void subtract(list < MCvtx * > & subtractedlist)
void subtract(list < MCvtx * > & subtractedlist, list < MCvtx * > & subtractlist)
void complement(list < MCvtx * > & fulllist)
void complement(list < MCvtx * > & fulllist, list < MCvtx * > & list1, list < MCvtx * > & listbar)
~MCvtxFilter()
DisplacedVertices
DisplacedVertices(list < MCvtx * > & list1)
~DisplacedVertices()
TrimmedVertices
TrimmedVertices(list < MCparticle * > & list1)
TrimmedVertices(list < MCvtx * > & list1)
TrimmedVertices(list < MCvtx * > & list1, bool & noresonances)
TrimmedVertices(list < MCvtx * > & list1, bool & noresonances, bool & nopartons)
~TrimmedVertices()
void remove()
void trim(list < MCvtx * > & list1, bool & noresonances, bool & nopartons)
bool trimVtx(MCvtx * & vtxin, bool & partons, bool & resonances, MCvtx * & vtxout)
bool dotrim(MCparticle * pt, bool & nopartons, bool & noresonances)