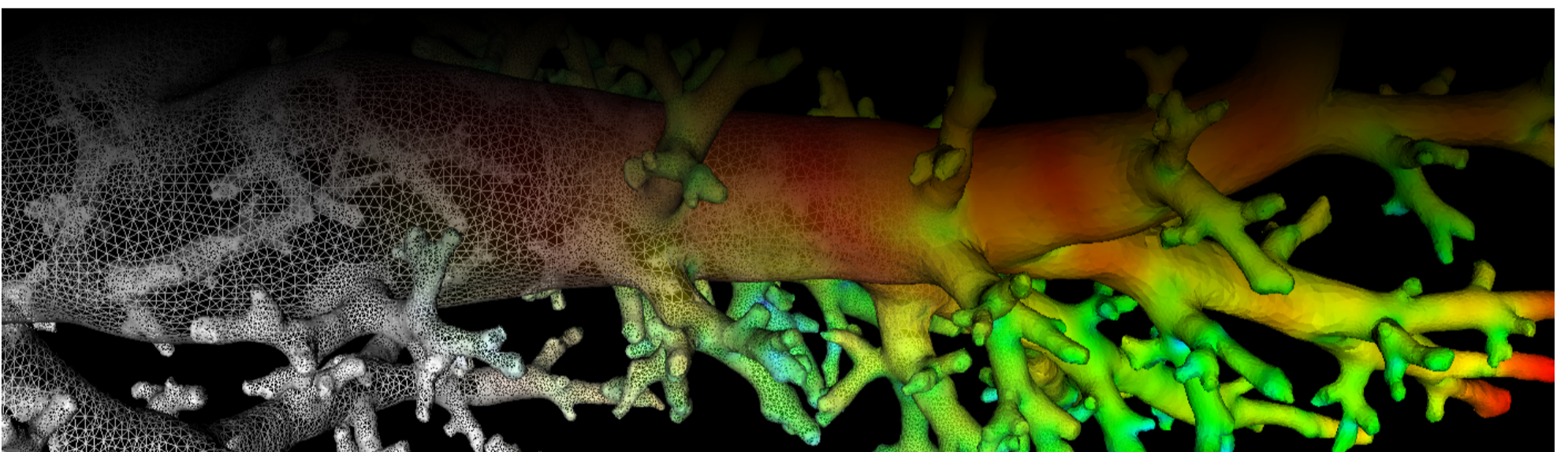


Lung Anatomy + Particle Deposition (lapd) Mouse Archive for Modeling and Computational Toxicology

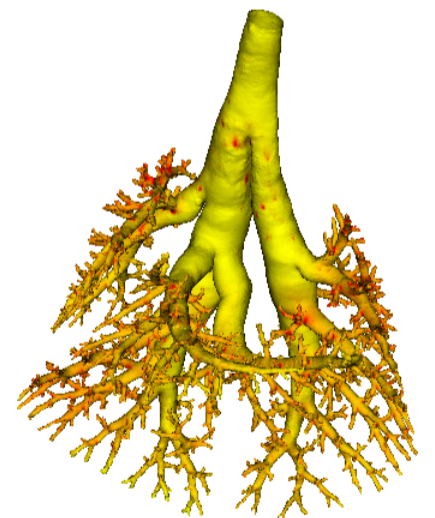


Mesh *_AirwayWallDeposition.vtk

Aerosol deposition measurements near airway wall.

For each of the mesh's vertex locations the aerosol deposition near the airway wall is measured and stored as a scalar value in *_AirwayWallDeposition.vtk. The deposition measurement for an individual vertex is obtained by spatially averaging in normalized aerosol deposition image volume [*_AerosolNormalized.mha](#) in a neighborhood of the vertex's location.

Geometrically and topologically *_AirwayWallDeposition.vtk is identical to [*_AirwaySegments.vtk](#) and [*_AirwayOutlets.vtk](#).



Code Example

This examples shows how to read and write a mesh such as *_AirwayWallDeposition.vtk using C++ and ITK.

[readWriteMesh.cpp](#) hosted with ❤ by [GitHub](#)

[view raw](#)

```
/*
Example how to read and write meshes used in lapdMouse project using ITK.

```bash
./readWriteMesh m01_AirwayOutlets.vtk out.vtk
```
*/

// ITK includes
#include <itkMesh.h>
#include <itkMeshFileReader.h>
#include <itkMeshFileWriter.h>

int main(int argc, char**argv)
{
    if (argc!=3)
    {
        std::cerr << "Usage: " << argv[0] << " input output" << std::endl;
        return -1;
    }

    // typedef for meshes used in lapdMouse project
    typedef itk::Mesh< float, 3 > MeshType;
```

Related Data Structures

[* AirwayOutlets.vtk](#) | [* AerosolNormalized.mha](#) | [* AirwaySegments.vtk](#)

Related Code Examples

[readWriteMesh.cpp](#)

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