



Figure 2.5: This picture shows the entire hospital graph superimposed on a 3-dimensional architectural drawing of the hospital. The vertices are colored according to their building designator.

hospital vertices) on the UIHC facility and plays a critical role in a number of aspects of our work where spatial proximity (or lack thereof) is important.

Vertices	Edges	Mean Degree	Diameter	Mean Path Length
18,961	23,442	1.236	137	102.39

Figure 2.6: Basic characteristics of the hospital graph. This graph has an average degree of 1.236, which is consistent with our observation that most rooms have degree one or two because they connect only to a corridor or to a corridor and a bathroom.

2.1.2 Extracting contacts

Fix a time window T that corresponds to a contiguous sequence of days during the time period between 2006-09-01 and 2008-06-21, that we have login data for. For