

# Dynamic Graphs and the DGG Formalism

# Dynamic Graphs

# What are they?

- Static graphs are used to represent objects and relationships.
- Labeled graphs, are graphs that can be labeled by number, color etc.
- Dynamic graphs, are graphs that change over time and represent changing objects or relationships.
- Formally a dynamic graph is:
  - $G(t) = (V(t), E(t), \alpha_t)$  with  $\alpha_t : V(t) \longrightarrow L$   
where alpha is a map of vertices to labels

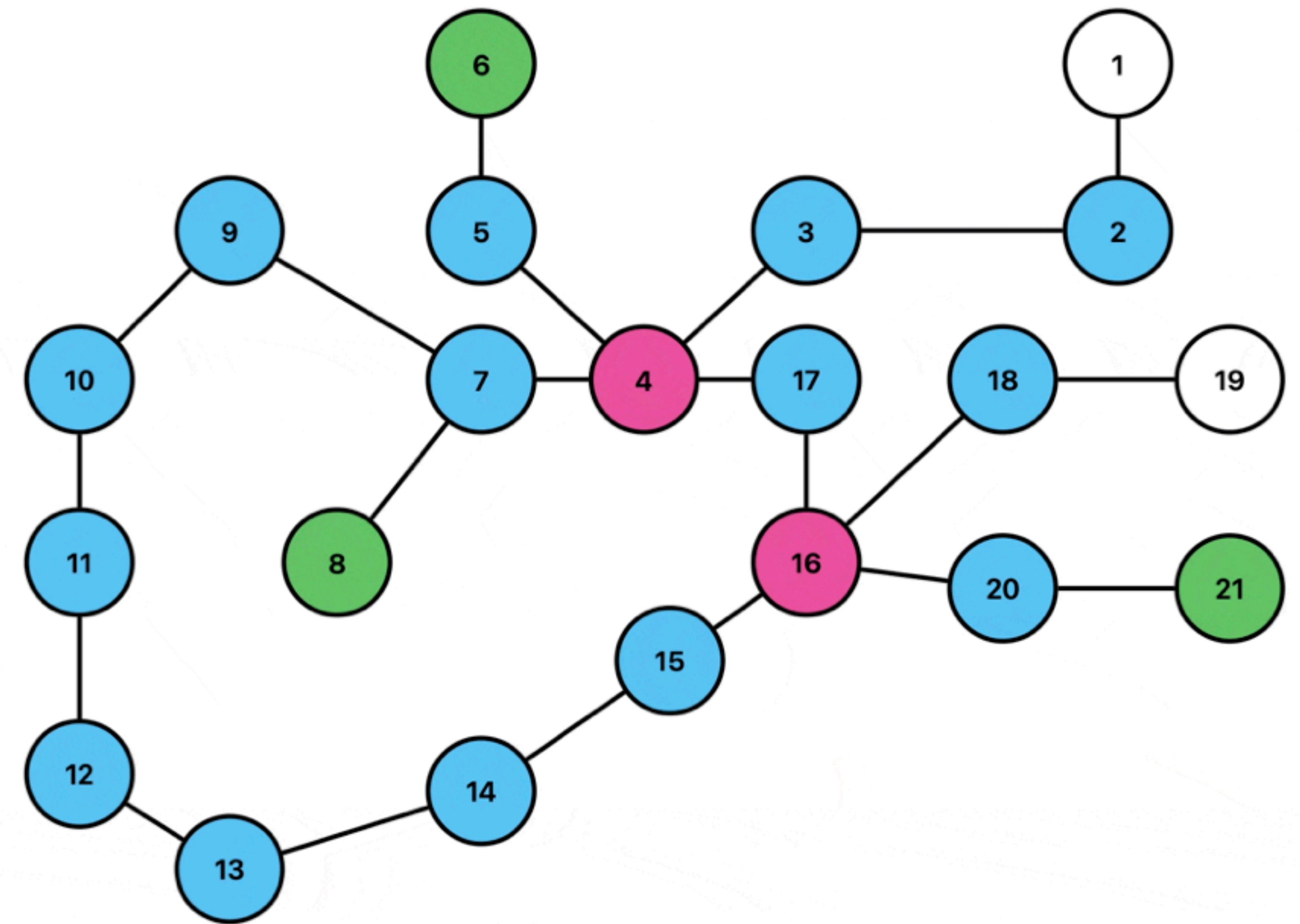


Figure 2: Labeled Dynamic Graph Example.