Comments on E5 “Topology”

Possible Synonyms:
Network Topology, Algebraic Topology, analysis situs, node arrangement

Opening sentence of definition, make it stronger. Say something to the effect of “In general, topology is the…” then use the rest of the section to get into more specifics.

“Here structure is actually a relationship among components…” could be restated to say “Structure is a relationship between components…”

First Paragraph “Generally speaking, we say two shapes …” should be two shapes
In the definition, can you put a figure. The example would be significantly enhanced if you can explain that.

Last sentence of the definition is good, but should be reworded. It may be better to add it to the first sentence to say something like “Topology is an extension of geometry that has strong connections to the set theory in mathematics and to graph theory in computer science.

Historical Background:
Restate first two sentences to be: - “Topology-related research began in mathematics during the 18th Century, but was not introduced until the 19th century in Germany.”

It might be good to state what started the study of topology, was it just theoretically the next step, or was there some reason for it’s use?

The application part is good, make a figure of a network, showing its topology. That may provide a better understanding of its use.

Scientific fundamental section is a bit brief. Extending it would be beneficial. Do you have any formulas or figures that can be added. Some figures representing the examples, a diagram showing the difference between one-to-one possibly or a diagram showing a few different topological maps would be beneficial. If there is any special notation, using some of that notation in this section would be appropriate.

Do you have any sources for either the historical background or the definition? The paper is a bit week by not having some sources for these sections. Since you are not teaching the whole concept of topography, you may wish to include a reference to a book which describes it in more detail.

Key Applications, adding a figure for the different types of topologies would make it easier to visualize.
On the third page “evaluates traditional algorithms sued to discover” should be “evaluates traditional algorithms used to discover”

Look for long sentences that can be shortened such as “As the Internet grows up, there are more and more devices or nodes participating in the network, which result in the difficulty of measuring the structure and behavior of the Internet.”

This could be reworded as, “As the Internet matures, there are more devices that are participating in the network. The increase in nodes results in greater difficulty of measuring the structure and behavior of the Internet.”

There is good work in the application section, but strengthening the other sections, increasing the scientific background section especially, and adding some references for the other sections, possibly some suggestions for more detail on topology, would be beneficial. Be careful with being to general in your language. Add some figures to help with explaining the information. That should help to explain the material.