Computational Network Survivability

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Abstract of Poster: The explosive growth of data traffic requires highly survivable networks. Since a high volume of data is flowing onto a single fiber. A single cut can affect incredibly larger groups of clients, leading to catastrophic economical effects. Most current developments on this topic are focusing on formulating a general framework that can sufficiently describe a network survivability performance. Yet, the existing implementations could not provide a generalization to any network configurations. In addition, due to the complexity of modern network topology, human computational capabilities are no longer able to comprehend it. The objective of this presentation is to investigate the capability of computational network survivability. By definition, computational network survivability is intended to compute any highly complex and random topology with the help of computers. By performing intensive computations, this computational model will provide articulate numerical results for finding survivability measures. This allows us to discover something that may trigger the new era of network survivability.