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Enhancing the scale-free network's attack tolerance ZEHUI QU, PU WANG, ZHIGUANG QIN, ALBERT-LASZLO BARABASI — Despite the large size of most communication systems such as the Internet and World Wide Web (WWW), there is a relatively short path between two nodes, revealing the networks' small world characteristic which speeds the delivery of information and data. While these networks have a surprising error tolerance, their scale-free topology makes them fragile under intentional attack, leaving us a challenge on how to improve the networks' robustness against attack without losing their small world merit. Here we try to enhance scale-free network's tolerance under attack by using a method based on networks' topology re-constructing.

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