Adaptive defenses alter the environment in response to adversarial action and perceived threats. Such defenses are a specific example of a broader class of management techniques called system agility. In its fullest generality, a science of agility is based on a reasoned modification to a system or environment in response to a functional, performance, or security needs. This talk highlights the activities surrounding the investigation of this science within the recently launched Cyber-Security Collaborative Research Alliance. In this context, the talk identifies questions of when, what, and how to employ changes to improve the security of an environment, as well as consider how to measure and weigh the effectiveness of different approaches to agility.

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Sponsored by the University of Pittsburgh School of Information Sciences and the Laboratory for Education and Research on Security Assured Information Systems (LERSAIS)