Abstract: Secure channels are one of the most pivotal building blocks in protected communications and data transfer, including Internet security, messaging applications, and IoT protocols. Yet, little is understood about what it means to achieve a “secure channel”, and offered security guarantees vary widely. This talk addresses the topic of secure channels from a provable security perspective, covering both current challenges and future potential for achieving proofs of security in the channel context.

Biography: Britta Hale is a research fellow and PhD candidate at the Norwegian University of Science and Technology (NTNU) working in provable security and computational analysis. Current research areas include the modeling and analysis of key exchange and authentication protocols, and secure channel guarantees. Hale holds a master of science in the mathematics of cryptography and communications from Royal Holloway, University of London, and has a background in pure mathematics.