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Nick Salter and **Bena Tshishiku*** (tshishikub@gmail.com). *Surface bundles, monodromy, and arithmetic groups.*

In the 1960s Atiyah and Kodaira constructed surface bundles over surfaces with many interesting properties. The topology of such a bundle is completely encoded in its monodromy representation (a homomorphism to a mapping class group), and it is an interesting problem to understand precisely how the topology of the bundle is reflected in algebraic properties of the monodromy. The main result of this talk is that the Atiyah–Kodaira bundles have arithmetic monodromy groups. As an application, using work of L. Chen, one can show that Atiyah–Kodaira bundles fiber in exactly two ways. This is joint work with Nick Salter. (Received September 03, 2018)