Abstract: Let $T$ be a complete discrete valuation ring and let $\hat{X}$ be a smooth projective $T$-curve. In this talk I will talk about construction of indecomposable and noncrossed product division algebras over $F$, which is the function field of $\hat{X}$.

The construction is based on the technique "patching over fields", which was proposed by Harbater and Hartmann. In this talk I will recall the technique and present its application to Galois cohomology. In particular, I will apply this patching technique to construct an index preserving section $\text{Br}(\hat{F}) \to \text{Br}(F)$ (where $\hat{F}$ is the completion of $F$ with respect to the valuation induced by the closed fibre), which splits the restriction and use this section to lift indecomposable and noncrossed product division algebras over $\hat{F}$ to $F$.