

1089-13-208      **Ilke Canakci\*** (`ilke.canakci@uconn.edu`), 196 Auditorium Road, Unit 3009, Storrs, CT 06269-3009, and **Ralf Schiffler** (`ralf.schiffler@uconn.edu`), 196 Auditorium Road, Unit 3009, Storrs, CT 06269-3009. *On surface cluster algebras: Snake and band graph calculus.*

Recall from [MSW] that there is a combinatorial formula for the Laurent expansion of cluster variables for cluster algebras arising from surfaces [FST] given by perfect matchings of snake graphs associated to arcs in the surface. I will report on a joint work with Ralf Schiffler in which we introduce the notion of abstract snake graphs and develop a graphical calculus for surface cluster algebras. Moreover, I will talk about how to extend this results to abstract band graphs.

## References

- [FST] S. Fomin, M. Shapiro, and D. Thurston, Cluster algebras and triangulated surfaces. Part I: Cluster complexes, *Acta Math.* **201** (2008), 83-146.
- [MSW] G. Musiker, R. Schiffler and L. Williams, Positivity for cluster algebras from surfaces, *Adv. Math.* **227**, (2011), 2241–2308.

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