

This article reviews applications of the Rankin-Selberg method in number theory to the computation of one-loop modular integrals in string theory, initiated by Angelantonj, Florakis and Pioline in [1]. This new method, contrary to previously known approaches, makes T-duality manifest throughout the computation. To survey recent results of the new method, the author presents various examples of the applications of the Rankin-Selberg method to closed string amplitudes, utilizing non-holomorphic Eisenstein series. The contents are highly technical and would be hard reading without proper understandings of the related subjects. The article also includes applications to the calculation of higher-loop modular integrals in string theory. It is recommendable for interested readers to see a recent review on this particular topic as well [2].

## References

- [1] C. Angelantonj, I. Florakis and B. Pioline, *Commun. Num. Theor. Phys.* **6**, 159 (2012) [arXiv:1110.5318 [hep-th]].
- [2] I. Florakis, *PoS Corfu* **2012**, 101 (2013) [arXiv:1303.3788 [hep-th]].