

Errata: “Ratio of Tiling Generating Functions of Semi-hexagons and Quartered Hexagons with Dents” (ECA 2:1 (2022) Article #S2R5)

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1) There is a typo in the formula of of Theorem 1.2 (Eq. (4)):

$$\text{factor } X^2 + q^{2(x+i-b_j)}XY \text{ should be } (X + q^{2(x+i-b_j)}Y)/2.$$

The correct formula should be:

$$\frac{M(S'_x((a_i)_{i=1}^m; (b_j)_{j=1}^n))}{M(S'_y((a_i)_{i=1}^m; (b_j)_{j=1}^n))} = q^{\frac{n}{2}(y^2-x^2)+(y-x)(\sum_{i=1}^n b_j - \frac{1}{2}m^2 - \frac{1}{2}n^2 - mn + 2n)} \frac{PP_{q^2}(y, m, n)}{PP_{q^2}(x, m, n)} \\ \times \prod_{j=1}^n \prod_{i=1}^{y-x} \left(\frac{X + q^{2(x+i-b_j)}Y}{2} \right) \prod_{i=1}^m \frac{(q^{2(x+i)}; q^2)_{a_i-i}}{(q^{2(y+i)}; q^2)_{a_i-i}} \prod_{j=1}^n \frac{(q^{2(x+j)}; q^2)_{b_j-j}}{(q^{2(y+j)}; q^2)_{b_j-j}}.$$

2) There are a typo in the formula of Lemma 2.7 (page 6; Eq. (13)): *some exponents of q were mistakenly recorded.* The correct formula should be

$$M(S_{a,b}(s_1, s_2, \dots, s_b)) = 2^{-\binom{b}{2}} q^{\sum_{i=1}^b (b-1)(i+1/2-2s_i)} \prod_{1 \leq i < j \leq b} \frac{q^{2s_j} - q^{2s_i}}{q^{2j} - q^{2i}} \prod_{i=1}^b \prod_{j=1}^{i-1} (q^{2(s_i+s_j-1)} X + Y).$$

The above two formulas are also updated in the preprint version of the paper [1] published on arxiv.org.

References

- [1] T. Lai, *Ratio of tiling generating functions of semi-hexagons and quartered hexagons with dents*, arXiv:2006.10900v4.