

Corrigendum to “The BMS Algorithm” by S. Sakata, in *Gröbner Bases, Coding, and Cryptography* (eds. M. Sala et.), Springer, 143–163, 2009.

In the descriptions of the BMS algorithm and its variations throughout the paper: S.Sakata, “The BMS Algorithm,” pp.143–163,

Page 151, Lemma 2 (2): The formula

$$h := X^{(a-c)-dd'-d}f - \frac{\text{dis}(f)}{\text{dis}(g)}g \in F(a \oplus 1)$$

should be

$$h := X^{d'-d}f - \frac{\text{dis}(f)}{\text{dis}(g)}X^{d'-(a-c)}g \in F(a \oplus 1).$$

Page 152, Algorithm 2, Step 3 (1), line 5: The formula

$$h := X^{\hat{d}-dd'-d}f - d_f g$$

should be

$$h := X^{d'-d}f - d_f X^{d'-(b-c)}g.$$

Page 158, Algorithm 3, Step 3 (1), line 5: The formula

$$h := X^{\hat{d}-dd'-d}f - d_f g$$

should be

$$h := X^{d'-d}f - d_f X^{d'-(b-c)}g.$$

Page 159, Algorithm 4, Step 3 (1), line 5: The formula

$$h := X^{\hat{d}-dd'-d}\mathbf{f} - d_f \mathbf{g}$$

should be

$$h := X^{d'-d}\mathbf{f} - d_{\mathbf{f}} X^{d'-(b-c)}\mathbf{g}.$$

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