Erratum

Production of heavy Higgs bosons at $e^+ e^-$ -colliders

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Recently Terazawa and Biyajima [1] recalculated my results of $\sigma(e^+ e^- \rightarrow \nu \bar{\nu} H)$ and found, that their results differ from mine essentially by a factor 1/16. I agree with them that (3) should read:

$$\sigma = \frac{1}{16} \cdot \frac{g^6 M_W^2}{64 s^2 \pi^4} \cdot \frac{\int \frac{(1 + \cos \beta)(1 - \cos \theta \cos \beta + \sin \theta \sin \alpha \sin \beta)}{(1 - \cos \beta + M_W^2/\sqrt{s}|q_1|)^2 |q_1| |q_2|} d|q_1| d|q_2| d \cos \beta d\alpha}{(1 + \cos \theta \cos \beta - \sin \theta \sin \alpha \sin \beta + M_W^2/\sqrt{s}|q_2|)^2}.$$

Furthermore the third inequality in (5) has to be replaced by the expression

$$M_H^2/4 \leq (\sqrt{s}/2 - |q_1|)(\sqrt{s}/2 - |q_2|).$$

Unfortunately, this error influences all further results and conclusions. The signal of the Higgs boson is not visible over the background any more.

I would like to thank O. Terazawa and M. Biyajima for pointing out this error.

References

1. O. Terazawa, M. Biyajima: Matsumoto-preprint