547 - Spring 2018 - HW9

April 22, 2018

1. Prove that there is no closed 4-manifold homotopy equivalent to $S^2 \vee S^4$.

2. Compute the cohomology ring of $\mathbb{RP}^n$ with $\mathbb{F}_2$ coefficients.

3. Hatcher, Exercise 3.3.8.

4. Hatcher, Exercise 3.3.10.

5. Hatcher, Exercise 3.3.12.

6. Hatcher, Exercise 3.3.18.

7. Hatcher, Exercise 3.3.20.

8. Hatcher, Exercise 3.3.20.

9. Hatcher, Exercise 3.3.25.

10. Hatcher, Exercise 3.3.27.