The Rasmussen invariants and the sharper slice-Bennequin inequality on knots

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Rasmussen introduced a knot invariant based on Khovanov homology theory, and showed that this invariant estimates the four-genus. We compare his result with the sharper slice-Bennequin inequality for knots. Then we obtain a similar estimate of the Rasmussen invariant to this inequality. It includes the Bennequin inequality on the Rasmussen invariants, which is shown independently by Plamenevskaya and Shumakovitch.