

<u>Course</u> > <u>Week 3</u> > <u>Brownian motion 1: basic theories</u> > Problem (5)

Problem (5)

Problem 5

0.0/2.0 points (graded)

Calculate the right-hand-side of Eq.(47) using the velocity auto-correlation function obtained via Problem 3 of Part 2, where the overdamped limit $(m \to 0)$ is considered. Choose the correct result from the following choices.

$$D = \frac{1}{3} \int_0^\infty dt \; \varphi_V(t) \tag{47}$$

$\bigcap ilde{D}$	
\bigcirc 6 $\tilde{D}t$	
$O(\frac{\tilde{D}}{k_B T \zeta})$	
$\bigcap \frac{m ilde{D}}{\zeta}$	
$\bigcap rac{ ilde{D}}{\zeta^2}$	
Submit You hav	re used 0 of 2 attempts

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