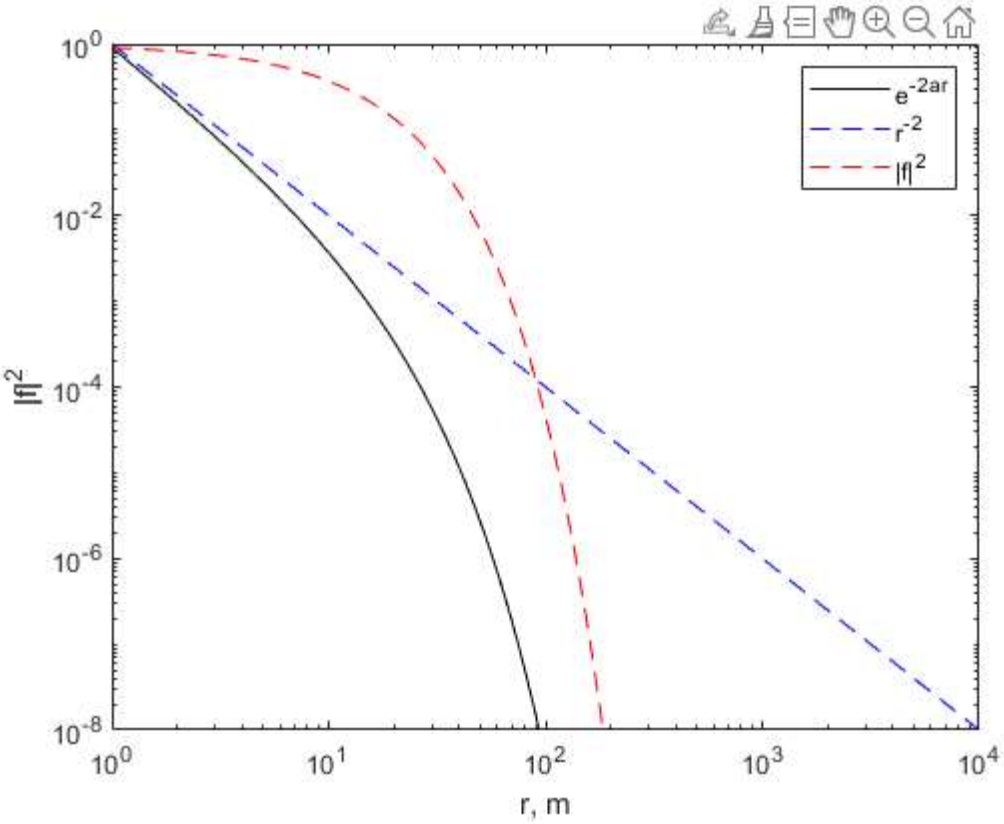
```
r = logspace(0,4, 1000);
fMag = abs(exp(-0.05.*r).*exp((-1i).*r)./r).^2;
rad = r.^(-2);
e = exp((-2*a).*r);

figure
loglog(r, fMag, 'k')
hold on
loglog(r, rad, '--b')
hold on
loglog(r, e, '--r')
hold on

xlabel('r, m')
ylabel('|f|^2')
ylim([1/10^(8), 1])
legend('e^-^2^a^r', 'r^-^2', '|f|^2')
hold off
```



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