

AP Physics C: Mechanics

Glossary · 词汇表 · every term in the course, A–Z

English	中文	Pinyin
accelerating	加速	jiā sù
 acceleration	加速度	jiā sù dù
 action-reaction pair	作用反作用对	zuò yòng fǎn zuò yòng duì
altitude	海拔	hǎi bá
 amplitude	振幅	zhèn fú
 angular acceleration	角加速度	jiǎo jiā sù dù
 angular displacement	角位移	jiǎo wèi yí
 angular frequency	角频率	jiǎo pín lǜ
 angular impulse	角冲量	jiǎo chōng liàng
 angular momentum	角动量	jiǎo dòng liàng
 angular position	角位置	jiǎo wèi zhì
 angular velocity	角速度	jiǎo sù dù
 area	面积	miàn jī
 average power	平均功率	píng jūn gōng lǜ
 average velocity	平均速度	píng jūn sù dù
axis of rotation	转轴	zhuàn zhóu
boat	船	chuán
 cancel	抵消	dǐ xiāo
 center of mass	质心	zhì xīn
 centripetal acceleration	向心加速度	xiàng xīn jiā sù dù
 centripetal force	向心力	xiàng xīn lì

English	中文	Pinyin
 coefficient of friction	摩擦系数	mó cā xì shù
 collisions	碰撞	pèng zhuàng
component	分量	fèn liàng
 components	分量	fèn liàng
conservation of mechanical energy	机械能守恒	jī xiè néng shǒu héng
 conservative force	保守力	bǎo shǒu lì
 conservative forces	保守力	bǎo shǒu lì
 conserved	守恒	shǒu héng
 contact forces	接触力	jiē chù lì
 contact time	接触时间	jiē chù shí jiān
coordinate axis	坐标轴	zuò biāo zhóu
cross product	叉积	chā jī
crosswind	侧风	cè fēng
 deformation	形变	xíng biàn
 derivative	导数	dǎo shù
 derivatives	导数	dǎo shù
 differential equation	微分方程	wēi fēn fāng chéng
direction	方向	fāng xiàng
 disk	圆盘	yuán pán
→ displacement	位移	wèi yí
distance	距离	jù lí
 distribution of mass	质量分布	zhì liàng fēn bù
 dot product	点积	diǎn jī
 elastic collision	弹性碰撞	tán xìng pèng zhuàng

English	中文	Pinyin
 elastic potential energy	弹性势能	tán xìng shì néng
 elliptical orbit	椭圆轨道	tuǒ yuán guǐ dào
 energy lost	损失的能量	sǔn shī de néng liàng
 equilibrium	平衡位置	píng héng wèi zhì
 escape velocity	逃逸速度	táo yì sù dù
 explosions	爆炸	bào zhà
 extended free-body diagram	扩展受力图	kuò zhǎn shòu lì tú
 field forces	场力	chǎng lì
 flywheel	飞轮	fēi lún
 force	力	lì
 force components	力的分量	lì de fèn liàng
 free fall	自由落体	zì yóu luò tǐ
 free-body diagram	受力图	shòu lì tú
 frequency	频率	pín lǜ
 Friction	摩擦力	mó cā lì
 graphs	图像	tú xiàng
 gravitational field	引力场	yǐn lì chǎng
 gravitational potential energy	引力势能	yǐn lì shì néng
 Hooke's law	胡克定律	hú kè dìng lǜ
 hoop	圆环	yuán huán
 impulse	冲量	chōng liàng
 impulse-momentum theorem	冲量动量定理	chōng liàng dòng liàng dìng lǐ
 impulse-momentum theorem	冲量-动量定理	chōng liàng - dòng liàng dìng lǐ

English	中文	Pinyin
 in parallel	并联	bìng lián
 in series	串联	chuàn lián
 incline	斜面	xié miàn
 inelastic collision	非弹性碰撞	fēi tán xìng pèng zhuàng
 inertia	惯性	guàn xìng
inertial	惯性系	guàn xìng xì
 inertial reference frame	惯性参考系	guàn xìng cān kǎo xì
 instantaneous power	瞬时功率	shùn shí gōng lǜ
 instantaneous velocity	瞬时速度	shùn shí sù dù
 integral	积分	jī fēn
 internal forces	内力	nèi lì
 isolated system	孤立系统	gū lì xì tǒng
 joules	焦耳	jiāo ěr
 Kepler's second law	开普勒第二定律	kāi pǔ lēi dì èr dìng lǜ
Kepler's third law	开普勒第三定律	kāi pǔ lēi dì sān dìng lǜ
kinematic equations for constant angular acceleration	匀角加速度运动学 方程	yún jiǎo jiā sù dù yùn dòng xué fāng chéng
 kinematics	运动学	yùn dòng xué
 kinetic	动摩擦	dòng mó cā
 kinetic energy	动能	dòng néng
 kinetic friction	动摩擦	dòng mó cā
 lever arm	力臂	lì bì
 linear density	线密度	xiàn mì dù
 linear momentum	动量	dòng liàng

English	中文	Pinyin
linear speed	线速度	xiàn sù dù
 magnitude	大小	dà xiǎo
 mass	质量	zhì liàng
mass on a spring	弹簧振子	tán huáng zhèn zǐ
maximum height	最大高度	zuì dà gāo dù
maximum speed	最大速率	zuì dà sù lǜ
measurement	测量	cè liáng
 Mechanical energy	机械能	jī xiè néng
 moment arm	力臂	lì bì
natural frequency	固有频率	gù yǒu pín lǜ
 net external force	净外力	jìng wài lì
 net force	合力	hé lì
 net torque	净力矩	jìng lì jǔ
 net work	净功	jìng gōng
 Newton's first law	牛顿第一定律	niú dùn dì yí dìng lǜ
Newton's first law in rotational form	转动形式的牛顿第一定律	zhuǎn dòng xíng shì de niú dùn dì yí dìng lǜ
 Newton's law of gravitation	万有引力定律	wàn yǒu yǐn lì dìng lǜ
 Newton's law of universal gravitation	万有引力定律	wàn yǒu yǐn lì dìng lǜ
 Newton's second law	牛顿第二定律	niú dùn dì èr dìng lǜ
 Newton's second law for rotation	转动的牛顿第二定律	zhuǎn dòng de niú dùn dì èr dìng lǜ
 Newton's third law	牛顿第三定律	niú dùn dì sān dìng lǜ
non-conservative force	非保守力	fēi bǎo shǒu lì
 nonconservative forces	非保守力	fēi bǎo shǒu lì

English	中文	Pinyin
 normal force	法向力	fǎ xiàng lì
orbital speed	轨道速度	guǐ dào sù dù
parabola	抛物线	pāo wù xiàn
 parallel-axis theorem	平行轴定理	píng xíng zhóu dìng lǐ
 perfectly inelastic collision	完全非弹性碰撞	wán quán fēi tán xìng pèng zhuàng
 period	周期	zhōu qī
 periodic motion	周期运动	zhōu qī yùn dòng
 phase constant	相位常数	xiàng wèi cháng shù
 physical pendulum	物理摆	wù lǐ bǎi
• point particle	质点	zhì diǎn
position	位置	wèi zhì
 Potential energy	势能	shì néng
potential energy graph	势能图	shì néng tú
 power	功率	gōng lǜ
projectile	抛体	pāo tǐ
 projectile motion	抛体运动	pāo tǐ yùn dòng
 pulley	滑轮	huá lún
radial	径向	jìng xiàng
π radians	弧度	hú dù
range	射程	shè chéng
 reference frame	参考系	cān kǎo xì
relative	相对	xiāng duì
 relative motion	相对运动	xiāng duì yùn dòng
 resistive force	阻力	zǔ lì

English	中文	Pinyin
resonance	共振	gòng zhèn
 restoring force	回复力	huí fù lì
resultant	合矢量	hé shǐ liàng
right-hand rule	右手定则	yòu shǒu dìng zé
 rigid body	刚体	gāng tǐ
river	河流	hé liú
 rolling without slipping	无滑滚动	wú huá gǔn dòng
ropes and pulleys	绳与滑轮	shéng yǔ huá lún
 rotational equilibrium	转动平衡	zhuǎn dòng píng héng
 rotational inertia	转动惯量	zhuǎn dòng guàn liàng
 rotational kinetic energy	转动动能	zhuǎn dòng dòng néng
 rotational power	转动功率	zhuǎn dòng gōng lǜ
 satellite	卫星	wèi xīng
# scalar	标量	biāo liàng
separate the variables	分离变量	fēn lí biàn liàng
 simple harmonic motion	简谐运动	jiǎn xié yùn dòng
 simple pendulum	单摆	dān bǎi
 slope	斜率	xié lǜ
 small-angle approximation	小角度近似	xiǎo jiǎo dù jìn sì
speed	速率	sù lǜ
 spring constant	弹簧劲度系数	tán huáng jìn dù xì shù
 stable equilibrium	稳定平衡	wěn dìng píng héng
 static	静摩擦	jìng mó cā

English	中文	Pinyin
 static equilibrium	静平衡	jìng píng héng
 static friction	静摩擦	jìng mó cā
 system	系统	xì tǒng
 system of particles	粒子系统	lì zǐ xì tǒng
 tangential	切向	qiè xiàng
 tangential acceleration	切向加速度	qiè xiàng jiā sù dù
 tension	张力	zhāng lì
 terminal velocity	终极速度	zhōng jí sù dù
 thermal energy	热能	rè néng
time of flight	飞行时间	fēi xíng shí jiān
 torque	力矩	lì jǔ
 torsion pendulum	扭摆	niǔ bǎi
total kinetic energy	总动能	zǒng dòng néng
 total mechanical energy	总机械能	zǒng jī xiè néng
trajectory	轨迹	guǐ jì
 translational equilibrium	平动平衡	píng dòng píng héng
 turning points	转折点	zhuǎn zhé diǎn
 uniform circular motion	匀速圆周运动	yún sù yuán zhōu yùn dòng
unit vector	单位矢量	dān wèi shǐ liàng
 unit vectors	单位矢量	dān wèi shǐ liàng
 unstable equilibrium	不稳定平衡	bù wěn dìng píng héng
 vector	矢量	shǐ liàng
 vector product	矢量积	shǐ liàng jī

English	中文	Pinyin
 velocity	速度	sù dù
 watts	瓦特	wǎ tè
 weight	重量	zhòng liàng
 work	功	gōng
 work-energy theorem	功能定理	gōng néng dìng lǐ
 work-energy theorem	动能定理	dòng néng dìng lǐ