Data files for the figures in the main text:

==========Figure 1==========

Figure1B_2K.dat	Angular magnetoresistance at T = 2 K in units of degree for angle and μΩ cm for resistivity.
Figure1B_6p5K.dat	Angular magnetoresistance at T = 6.5 K in units of degree for angle and μΩ cm for resistivity. The data are offset by −9.5 μΩ cm from the measured values.

Polar plot (inset of Fig. 1B) were drawn with offset data (Figure1B_2K.dat by −52.2 μΩ cm and Figure1B_6p5K.dat by −51.0 μΩ cm, respectively).

==========Figure 2==========

Figure2A_0p0deg.dat	Magnetic field dependence of the resistivity $\rho_{xx}(H)$ at field angle θ = 0.0º in units of T for magnetic field $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p1deg.dat	$\rho_{xx}(H)$ at θ = 0.1º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p2deg.dat	$\rho_{xx}(H)$ at θ = 0.2º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p3deg.dat	$\rho_{xx}(H)$ at θ = 0.3º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p4deg.dat	$\rho_{xx}(H)$ at θ = 0.4º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p5deg.dat	$\rho_{xx}(H)$ at θ = 0.5º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_0p7deg.dat	$\rho_{xx}(H)$ at θ = 0.7º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_1p0deg.dat	$\rho_{xx}(H)$ at θ = 1.0º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2A_1p5deg.dat	$\rho_{xx}(H)$ at θ = 1.5º in units of T for $\mu_0 H$ and μΩ cm for ρ_{xx}.
Figure2B_Mag.dat	Magnetic field H dependence of the magnetization $M(H)$ in units of T for $\mu_0 H$ and μ_B/Ce for M.
Figure2B_ACsus.dat	Real part of the AC susceptibility χ' as a function of H. The unit of $\mu_0 H$ is T.
Figure2B_derivACsus.dat	Field derivative of the real part of AC susceptibility with subtraction of the high field slope obtained by fitting the data above 4.5 T to a linear relation $d\chi'/dH - AH$. The unit of $\mu_0 H$ is T.
Figure2B_fit_highH.dat	Fitting of $M(H)$ to a linear relation in the field range of 0.05-0.1 T. The unit of $\mu_0 H$ is T.
Figure2B_fit_lowH.dat	Fitting of $M(H)$ to a linear relation in the field range of 0-0.015 T. The unit of $\mu_0 H$ is T.
Figure2C_1T.dat	Angular dependence of the resistivity $\rho_{xx}(\theta)$ at $\mu_0 H$ = 1 T in units of degree for angle θ and μΩ cm for ρ_{xx}.
Figure2C_1p3T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 1.3 T with offset by 0.3 μΩ cm from the measured value in units

	of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_1p75T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 1.75 T with offset by 0.6 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_2T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 2 T with offset by 0.9 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_2p2T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 2.2 T with offset by 1.2 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_2p6T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 2.6 T with offset by 1.5 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_3T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 3 T with offset by 1.8 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.
Figure2C_4T.dat	$\rho_{xx}(\theta)$ at $\mu_0 H$ = 4 T with offset by 2.1 μΩ cm from the measured value in units of degree for θ and μΩ cm for ρ_{xx}.

==========Figure 3==========

Figure3C_phase_diagram.dat	SAMR signal $\delta\rho_{xx}(T, H) = \rho_{xx}(T, H, \theta = 0^o) - \rho_{xx}(T, H, \theta = 1.5^o)$ on the *H*-*T* plane in units of K for temperature, T for magnetic field, and μΩ cm for resistivity, respectively.
Figure3C_TN.dat	Antiferroic spin ordering temperature in zero magnetic field T_N in unit of K.
Figure3C_H0.dat	Field scale H_0 as a function of temperature in units of K for temperature *T* and T for magnetic field $\mu_0 H$.
Figure3C_H1.dat	Field scale H_1 as a function of temperature in units of K for *T* and T for $\mu_0 H$.
Figure3C_H2.dat	Field scale H_2 as a function of temperature in units of K for *T* and T for $\mu_0 H$.

==========Figure 4==========

Figure4A_in1T.dat	Resistivity change from the peak value $\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by in-plane rotation of fixed magnetic field $\mu_0 H$ = 1 T. Angle Δθ is measured from the angle θ_{peak} where ρ_{xx} shows a maximum. The units of Δθ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_in1p5T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by in-plane rotation of $\mu_0 H$ = 1.5 T with offset

	by 1.7 μΩ cm. The units of Δθ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_in2T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by in-plane rotation of $\mu_0 H$ = 2 T with offset by 3.8 μΩ cm. The units of Δθ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_in2p8T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by in-plane rotation of $\mu_0 H$ = 2.8 T with offset by 5.2 μΩ cm. The units of Δθ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_in4T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by in-plane rotation of $\mu_0 H$ = 4 T with offset by 5.5 μΩ cm. The units of Δθ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_out1T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by out-of-plane rotation of $\mu_0 H$ = 1 T. Angle Δϕ is measured from the angle ϕ_{peak} where ρ_{xx} shows a maximum. The units of Δϕ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_out1p5T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by out-of-plane rotation of $\mu_0 H$ = 1.5 T with offset by 1.7 μΩ cm. The units of Δϕ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_out2T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by out-of-plane rotation of $\mu_0 H$ = 2 T with offset by 3.8 μΩ cm. The units of Δϕ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_out2p8T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by out-of-plane rotation of $\mu_0 H$ = 2.8 T with offset by 5.2 μΩ cm. The units of Δϕ and ρ_{xx} are degree and μΩ cm, respectively.
Figure4A_out4T.dat	$\rho_{xx}(H, \theta, \phi) - \rho_{xx}(H, \theta_{peak}, \phi_{peak})$ by out-of-plane rotation of $\mu_0 H$ = 4 T with offset by 5.5 μΩ cm. The units of Δϕ and ρ_{xx} are degree and μΩ cm, respectively.
fig4Bdata.dat	Boundary values of the lobes in Fig. 4B.

Data files for the figures in the supplementary materials:

==========Figure S1==========

FigureS1B_10K.dat	Powder neutron diffraction intensity at T = 10 K. The unit of angle 2θ is degree. Error_bar in the third column indicates the half length of total error bar centered at the data point (second column).
FigureS1B_1p8K.dat	Powder neutron diffraction intensity at T = 1.8 K. The unit of angle 2θ is degree. Error_bar in the third column indicates the half length of total error bar centered at the data point (second column).
FigureS1C.dat	Magnetic neutron diffraction intensity obtained by subtracting the intensity at 10 K from that at 1.8 K. The unit of angle 2θ is degree. Error_bar in the third column indicates the half length of total error bar centered at the data point (second column).

==========Figure S2==========

FigureS2A_Ge_large.dat	Magnetization M divided by magnetic field H as a function of temperature T for CeAlGe with larger lattice constant (a = 4.291 Å, c = 14.75 Å). The units of T and M/H are Kelvin and $cm^3\ mol^{-1}$, respectively.
FigureS2A_Ge_small.dat	M/H as a function of T for CeAlGe with smaller lattice constant (a = 4.286 Å, c = 14.72 Å). The units of T and M/H are Kelvin and $cm^3\ mol^{-1}$, respectively.
FigureS2A_Si20.dat	M/H as a function of T for $CeAlGe_{0.80}Si_{0.20}$. The units of T and M/H are Kelvin and $cm^3\ mol^{-1}$, respectively.
FigureS2A_Si28.dat	M/H as a function of T for $CeAlGe_{0.72}Si_{0.28}$. The units of T and M/H are Kelvin and $cm^3\ mol^{-1}$, respectively.
FigureS2A_Si32.dat	M/H as a function of T for $CeAlGe_{0.68}Si_{0.32}$. The units of T and M/H are Kelvin and $cm^3\ mol^{-1}$, respectively.
FigureS2A_TN.dat	Magnetic transition temperature T_N (in units of Kelvin) versus unit cell volume (in $Å^3$).
FigureS2B_CeAlGe.dat	Angular θ dependence of resistivity $\rho_{xx}(\theta)$ of CeAlGe with lattice constant a = 4.286 Å and c = 14.72 Å at T = 2 K in $\mu_0 H$ = 2 T. The units of θ and ρ are degree and μΩ cm, respectively.
FigureS2B_Si28n1.dat	$\rho_{xx}(\theta)$ of the first piece of $CeAlGe_{0.72}Si_{0.28}$ at T = 2 K in $\mu_0 H$ = 2 T. The units of θ and ρ are degree and μΩ cm, respectively. The data are offset by −10 μΩ cm from the measured values.

FigureS2B_Si28n2.dat	$\rho_{xx}(\theta)$ of the second piece of $CeAlGe_{0.72}Si_{0.28}$ at T = 2 K in $\mu_0 H$ = 2 T. The units of θ and ρ are degree and μΩ cm, respectively. The data are offset by 19 μΩ cm from the measured values.

==========Figure S3==========

FigureS3A.dat	Angular θ dependence of resistivity $\rho_{xx}(\theta)$ of $CeAlGe_{0.72}Si_{0.28}$ measured at T = 6.5 K in $\mu_0 H$ = 2.2 T (second column) along with the fitting result (third column). The units of θ is angle and that for $\rho_{xx}(\theta)$ is μΩ cm.
FigureS3B.dat	$\rho_{xx}(\theta)$ measured at T = 2 K in $\mu_0 H$ = 1 T (second column) along with the fitting result (third column). The units of θ is angle and that for $\rho_{xx}(\theta)$ is μΩ cm.
FigureS3C.dat	$\rho_{xx}(\theta)$ measured at T = 2 K in $\mu_0 H$ = 2.2 T (second column) along with the fitting result (third column). The units of θ is angle and that for $\rho_{xx}(\theta)$ is μΩ cm.

==========Figure S4==========

FigureS4A_H100.dat	Temperature T dependence of magnetization divided by magnetic field M/H in magnetic field $\mu_0 H$ = 0.05 T applied along the [100] direction in units of Kelvin for T and $cm^3\ mol^{-1}$ for M/H.
FigureS4A_H001.dat	T dependence of M/H in magnetic field $\mu_0 H$ = 0.05 T applied along the [001] direction in units of Kelvin for T and $cm^3\ mol^{-1}$ for M/H.
FigureS4B_mag.dat	Temperature T derivative of magnetization M in magnetic field $\mu_0 H$ = 0.05 T along the [100] direction as a function of temperature T (in units of Kelvin).
FigureS4B_res.dat	T dependence of resistivity ρ_{xx} in zero H. The units of T and ρ_{xx} are Kelvin and μΩ cm, respectively.
FigureS4C_M2K.dat	Magnetization M as a function of magnetic field H along the [100] direction at T = 2 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 1.4 μ_B/Ce from the measured values.
FigureS4C_fit2K_LH.dat	Linear fit of $M(H)$ at T = 2 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 1.4 μ_B/Ce from the obtained result.
FigureS4C_fit2K_HH.dat	Linear fit of $M(H)$ at T = 2 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 1.4 μ_B/Ce from the obtained result.
FigureS4C_M2p5K.dat	M as a function of H along the [100] direction at T = 2.5 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 1.2 μ_B/Ce from the measured values.
FigureS4C_fit2p5K_LH.dat	Linear fit of $M(H)$ at T = 2.5 K in the lower H region in units of μ_B/Ce for M

	and Tesla for $\mu_0 H$. The line is offset by 1.2 μ_B/Ce from the obtained result.
FigureS4C_fit2p5K_HH.dat	Linear fit of $M(H)$ at T = 2.5 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 1.2 μ_B/Ce from the obtained result.
FigureS4C_M3K.dat	M as a function of H along the [100] direction at T = 3 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 1.0 μ_B/Ce from the measured values.
FigureS4C_fit3K_LH.dat	Linear fit of $M(H)$ at T = 3 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 1.0 μ_B/Ce from the obtained result.
FigureS4C_fit3K_HH.dat	Linear fit of $M(H)$ at T = 3 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 1.0 μ_B/Ce from the obtained result.
FigureS4C_M3p5K.dat	M as a function of H along the [100] direction at T = 3.5 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 0.8 μ_B/Ce from the measured values.
FigureS4C_fit3p5K_LH.dat	Linear fit of $M(H)$ at T = 3.5 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.8 μ_B/Ce from the obtained result.
FigureS4C_fit3p5K_HH.dat	Linear fit of $M(H)$ at T = 3.5 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.8 μ_B/Ce from the obtained result.
FigureS4C_M4K.dat	M as a function of H along the [100] direction at T = 4 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 0.6 μ_B/Ce from the measured values.
FigureS4C_fit4K_LH.dat	Linear fit of $M(H)$ at T = 4 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.6 μ_B/Ce from the obtained result.
FigureS4C_fit4K_HH.dat	Linear fit of $M(H)$ at T = 4 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.6 μ_B/Ce from the obtained result.
FigureS4C_M4p5K.dat	M as a function of H along the [100] direction at T = 4.5 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 0.4 μ_B/Ce from the measured values.
FigureS4C_fit4p5K_LH.dat	Linear fit of $M(H)$ at T = 4.5 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.4 μ_B/Ce from the obtained result.
FigureS4C_fit4p5K_HH.dat	Linear fit of $M(H)$ at T = 4.5 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.4 μ_B/Ce from the obtained result.
FigureS4C_M5K.dat	M as a function of H along the [100] direction at T = 5 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The data are offset by 0.2 μ_B/Ce from the measured values.
FigureS4C_fit5K_LH.dat	Linear fit of $M(H)$ at T = 5 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.2 μ_B/Ce from the obtained result.
FigureS4C_fit5K_HH.dat	Linear fit of $M(H)$ at T = 5 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$. The line is offset by 0.2 μ_B/Ce from the obtained result.

FigureS4C_M5p5K.dat	M as a function of H along the [100] direction at T = 5.5 K in units of μ_B/Ce for M and Tesla for $\mu_0 H$.
FigureS4C_fit5p5K_LH.dat	Linear fit of $M(H)$ at T = 5.5 K in the lower H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$.
FigureS4C_fit5p5K_HH.dat	Linear fit of $M(H)$ at T = 5.5 K in the higher H region in units of μ_B/Ce for M and Tesla for $\mu_0 H$.
FigureS4C_H0.dat	Field scale H_0 in units of Tesla as a function of temperature T in K.
FigureS4D_2K.dat	Magnetic field H derivative of real part of AC susceptibility χ' with subtraction of high field slope AH, $d\chi'/dH - AH$, at T = 2 K as a function of H along the [100] direction. The unit of magnetic field $\mu_0 H$ is Tesla.
FigureS4D_2p25K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 2.25 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are offset by -4×10^{-7} for clarity.
FigureS4D_2p5K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 2.5 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are offset by -8×10^{-7}.
FigureS4D_2p75K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 2.75 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are offset by -1.2×10^{-6}.
FigureS4D_3K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 3 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are offset by -1.6×10^{-6}.
FigureS4D_3p25K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 3.25 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are offset by -2.0×10^{-6}.
FigureS4D_3p5K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 3.5 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.8 and offset by -2.4×10^{-6}.
FigureS4D_3p75K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 3.75 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.6 and offset by -2.8×10^{-6}.
FigureS4D_4K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 4 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.4 and offset by -3.3×10^{-6}.
FigureS4D_4p25K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 4.25 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.175 and offset by -4.0×10^{-6}.
FigureS4D_4p5K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 4.5 K. The unit of

	magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.08 and offset by -4.6×10^{-6}.
FigureS4D_4p75K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 4.75 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.05 and offset by -5.2×10^{-6}.
FigureS4D_5K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 5 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.02 and offset by -6.05×10^{-6}.
FigureS4D_5p25K.dat	$d\chi'/dH - AH$ versus $\mu_0 H$ along the [100] direction at T = 5.25 K. The unit of magnetic field $\mu_0 H$ is Tesla. The data are scaled by a factor 0.01 and offset by -6.9×10^{-6}.
FigureS4D_H1H2.dat	Field scale $\mu_0 H_1$ (second column) and $\mu_0 H_2$ (third column) in unit of Tesla as a function of temperature T in Kelvin.

==========Figure S5==========

FigureS5A_0deg.dat	Magnetic field dependence of the resistivity $\rho_{xx}(H)$ at field tilting angle to out-of-plane direction ϕ = 0º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_5deg.dat	$\rho_{xx}(H)$ at ϕ = 5º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_10deg.dat	$\rho_{xx}(H)$ at ϕ = 10º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_13deg.dat	$\rho_{xx}(H)$ at ϕ = 13º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_15deg.dat	$\rho_{xx}(H)$ at ϕ = 15º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_17deg.dat	$\rho_{xx}(H)$ at ϕ = 17º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_19deg.dat	$\rho_{xx}(H)$ at ϕ = 19º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5A_22deg.dat	$\rho_{xx}(H)$ at ϕ = 22º in units of Tesla for $\mu_0 H$ and μΩ cm for ρ_{xx}.
FigureS5B_1T.dat	Angular magnetoresistance with out-of-plane field rotation $\rho_{xx}(\phi)$ at $\mu_0 H$ = 1 T. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The units of $\Delta\phi$ and ρ_{xx} are degree and μΩ cm, respectively.
FigureS5B_1p5T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 1.5 T in units of degree for angle $\Delta\phi$ and μΩ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.1 μΩ cm form the measured values.
FigureS5B_2T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 2 T in units of degree for angle $\Delta\phi$ and μΩ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.2 μΩ cm form the measured values.

FigureS5B_2p5T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 2.5 T in units of degree for angle $\Delta\phi$ and $\mu\Omega$ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.3 $\mu\Omega$ cm form the measured values.
FigureS5B_2p8T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 2.8 T in units of degree for angle $\Delta\phi$ and $\mu\Omega$ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.4 $\mu\Omega$ cm form the measured values.
FigureS5B_3T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 3 T in units of degree for angle $\Delta\phi$ and $\mu\Omega$ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.5 $\mu\Omega$ cm form the measured values.
FigureS5B_4T.dat	$\rho_{xx}(\phi)$ at $\mu_0 H$ = 4 T in units of degree for angle $\Delta\phi$ and $\mu\Omega$ cm for ρ_{xx}. Angle $\Delta\phi$ is measured from the angle ϕ_{peak} where ρ_{xx} shows an extremum. The data are offset by 0.6 $\mu\Omega$ cm form the measured values.

==========Figure S6==========

FigureS6A_La1.dat	Hall resistivity as a function of magnetic field $\rho_{yx}(H)$ for LaAlGe #1. The units of $\mu_0 H$ is Tesla and that of ρ_{yx} is $\mu\Omega$ cm.
FigureS6A_La2.dat	$\rho_{yx}(H)$ for LaAlGe #2 in units of Tesla for $\mu_0 H$ and $\mu\Omega$ cm for ρ_{yx}.
FigureS6A_La3.dat	$\rho_{yx}(H)$ for LaAlGe #3 in units of Tesla for $\mu_0 H$ and $\mu\Omega$ cm for ρ_{yx}.
FigureS6A_Ce.dat	$\rho_{yx}(H)$ for CeAlGe in units of Tesla for $\mu_0 H$ and $\mu\Omega$ cm for ρ_{yx}.
FigureS6A_Si28.dat	$\rho_{yx}(H)$ for $CeAlGe_{0.72}Si_{0.28}$ in units of Tesla for $\mu_0 H$ and $\mu\Omega$ cm for ρ_{yx}.
FigureS6B_0p0deg.dat	$\delta\rho_{yx}(H, \theta = 0^o) = \rho_{yx}(H, \theta = 0^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.
FigureS6B_0p1deg.dat	$\delta\rho_{yx}(H, \theta = 0.1^o) = \rho_{yx}(H, \theta = 0.1^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.
FigureS6B_0p2deg.dat	$\delta\rho_{yx}(H, \theta = 0.2^o) = \rho_{yx}(H, \theta = 0.2^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.
FigureS6B_0p3deg.dat	$\delta\rho_{yx}(H, \theta = 0.3^o) = \rho_{yx}(H, \theta = 0.3^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.
FigureS6B_0p5deg.dat	$\delta\rho_{yx}(H, \theta = 0.5^o) = \rho_{yx}(H, \theta = 0.5^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.
FigureS6B_0p7deg.dat	$\delta\rho_{yx}(H, \theta = 0.7^o) = \rho_{yx}(H, \theta = 0.7^o) - \rho_{yx}(H, \theta = 1.5^o)$ in units of Tesla for $\mu_0 H$ and nΩ cm for $\delta\rho_{yx}$.

==========Figure S9==========

FigureS9_Exp.dat	Experimentally determined phase boundary. Position of center points (H_x, H_z) are listed in the first and second columns. The third and fourth columns are the error bar length of the H_x axis to the lower and higher H_x sides, respectively, and the fifth and sixth are that along the H_z axis to the lower and higher H_z sides. The H_x and H_z components of the boundary of lower H_x side are listed in the seventh and eighth columns and those of higher H_x sides are shown in the ninth and tenth columns, respectively.