

## Doping dependence of the Nernst effect in $\text{Eu}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ - departure from Dirac fermions physics

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We report a systematic study of the transport properties in the series of  $\text{Eu}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$  single crystals with  $x = 0, 0.15, 0.20$  and  $0.30$ . Spin-density-wave order is observed in the undoped and the least doped samples ( $x = 0, 0.15$ ), while for  $x = 0.15$  and  $0.20$   $\text{Eu}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$  becomes a superconductor. We found the properties of the parent  $\text{EuFe}_2\text{As}_2$  compound well described by the Dirac fermions model, whereas cobalt doping caused an evolution of the system toward a regular metallic state. The antiferromagnetic ordering of the  $\text{Eu}^{2+}$  ions at  $T_N \approx 20$  K has only minor influence on the measured quantities.