Magnetic phases of M_xAs_y (M=Co, Fe, Mn) compounds FREDRIK
BULTMARK, Uppsala University — We present theoretical calculations of X_xAs_y,
(X = Co, Fe, Mn) in different structures in order to understand how the As sur-
rounding influence the stability of the magnetic phases. We analyse the quenching of
the magnetic moment of the ferromagnetic phases in terms of the pd+hybridisation
between the magnetic ion and As. A simplified model of the quenching is suggested
and the dependence on the number of As neighbours and nearest neighbour distance
is investigated.

Fredrik Bultmark
Uppsala University