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Description of AFM_flightline_database:
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This database contains the helicopter-borne electromagnetic (HEM) and radiometric (HRD) results along
26 flight-lines (L78.1 - L103.1) of an airborne survey conducted by BGR in 2004.
The area covering the raised bog (Ahlen-Fahlkenber Moor, AFM) was truncated to
X = 480000-492000, Y = 5945000-5954000 (ETRS89, UTM32N).

Channel          Description                                           Statistics (#: mean +- std)
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Airborne results along flightlines:
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X,Y              Airborne coordinates along flightlines (ETRS89, UTM32N)
RECORD           Record number
TOPO             Airborne derived surface elevation (ref. DGM25)
DEM              Surface elevation at borehole derived from DGM25 (2012)
TOPO_DEM         TOPO - DEM:  all and [PI]                             (62801:-0.03 +- 0.48 m) [28747:-0.10 +- 0.52 m]
PI               Peat indicator (bog area)
RHOA5            Apparent resistivity at 140 kHz: all and [PI]         (62801: 71.9 +- 58.2 m) [28747:105.7 +- 52.5 m]
DA5              Apparent depth at 140 kHz: all and [PI]               (62801:-1.30 +- 1.40 m) [28747:-1.68 +- 1.55 m]
ZST5             Centroid depth at 140 kHz: all and [PI]               (62801: 3.89 +- 1.99 m) [28747: 4.99 +- 1.45 m]


HEM results:
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SGE1             Elevation of upper steepest gradient derived from HEM inversion models (L20)
SGE2             Elevation of lower steepest gradient derived from HEM inversion models (L20)
SGE              Selected peat base elevation (0.1 < RHO at SG < 130 Ohmm)
SGEF             NL-flitered peat base elevation
Elev_PB          SGEF with respect to PI
Elev_PB_Grid     Smoothed and interpolated Elev_PB
PBE_HEM          Final peat base elevation with respect to PI         (28680:-0.86 +- 1.28 m)
PT_HEM           Peat thickness: TOPO - PBE_HEM                        (28680: 3.27 +- 1.00 m)
RHO_PB           Resistivity at Elev_PB                                (19162:72.76 +-30.76 m)
RHO_MIN          Minimum resistivity above Elev_PB                     (19162:38.81 +-19.26 m)
RHO_MIN_LG       Log10(RHO_MIN)                                       (19162: 1.54 +- 0.22 m)

HRD results:
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Expo_TB           Exposure rate (from Technical Report)
Expo_BC           Exposure rate with advanced background and cultural noise corrections
Muea_HEM          -log(Expo_BC)/PT_HEM {geometr. mean} [opt]          (28680: 0.31 +- 0.20 1/m) {28680: 0.26 1/m}      [28680: 0.28 1/m]
PT_E_HEM          -log(Expo_BC)/0.314 {0.257} [0.283]                 (28747: 2.94 +- 1.39 m)   {28600: 3.59 +- 1.69 m} [28600: 3.26 +- 1.54 m]
DPT_E_HEM         PT_E_HEM - PT_HEM {0.257} [0.283]                   (28600:-0.32 +- 1.68 m)   {28548: 0.33 +- 1.94 m} [28548: 0.00 +- 1.81 m]


HEM+HRD results:
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CPT              (PT_HEM + PT_E_HEM)/2 (if diff < 2 m)                 (28542: 3.24 +- 0.83 m)
CPBE             TOPO - CPT                                            (28542:-0.84 +- 1.06 m)


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Description of AFM_borehole_database
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This database contains borehole data (LBEG, 2007) as well as HEM and HRD results picked from lines next to
or from grids at a borehole location.

Channel         Description                                            Statistics (#: mean +- std)
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Boreholes:
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X,Y_BH          Borehole coordinates (ETRS89, UTM32N)
ID              Borehole identifier
BTOP            Surface elevation of borehole (ref. 2007)              (103: 2.60 +- 0.96 m)
BH_Depth        Peat depth found in boreholes (ref. 2007)              (103: 2.94 +- 1.21 m)
BH_Elev         BTOP - BH_Depth (ref. 2007)                            (103:-0.34 +- 1.27 m)
DEM             DEM (DGM25, ref. 2012) at borehole location            (103: 2.58 +- 0.95 m)
BTOP_DEM        BTOP - DEM                                             (103: 0.02 +- 0.08 m)
Depth_BH        BH_Depth - BTOP_DEM (ref. 2012)                        (103: 2.93 +- 1.20 m)
Elev_BH         BH_Elev  - BTOP_DEM (ref. 2012)                        (103:-0.37 +- 1.28 m)
Clay            Clayey sediments below peat (1 = yes, * = no)

Airborne results on line next to boreholes:
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X,Y_AIR         Airborne coordinates next to borehole (ETRS89, UTM32N)
TOPO            Airborne derived surface elevation (ref. DGM25)        (103: 2.55 +- 0.94 m)
TOPO_DEM        TOPO - DEM                                             (103:-0.03 +- 0.58 m)
DTOPO           TOPO - BTOP                                            (103:-0.05 +- 0.59 m)
LINE            Line number next to borehole
RECORD          Record number next to borehole
DIST            Distance of borehole to next line (+/- = N/S)

HEM results on line next to boreholes:
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SG1             Depth of upper steepest gradient derived from HEM inversion models (L20)
RHO1            Resistivity at SG1 derived from HEM inversion models (L20)
SG2             Depth of lower steepest gradient derived from HEM inversion models (L20)
RHO2            Resistivity at SG2 derived from HEM inversion models (L20)
SG              Selected steepest gradient (10 < RHO < 130 Ohmm)       ( 78: 3.28 +- 1.47 m)
DSG             SG - BH_Depth [SG - Depth_BH]                          ( 78: 0.40 +- 1.79 m) [ 78: 0.42 +- 1.79 m]
SGE             TOPO - SG     [BTOP - SG]                              ( 78:-0.83 +- 1.69 m) [ 78:-0.76 +- 1.66 m]
DSGE            SG - BH_Elev  [SG - Elev_BH]                           ( 78:-0.47 +- 1.88 m) [ 78:-0.44 +- 1.87 m]

HEM results at boreholes (interpolated, picked from flightline grids):
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PBE_Grid        Gridded PBE_Grid ref. to peat indicator (PI)           ( 97:-0.57 +- 0.99 m)
DPBE_Grid       PBE_Grid - BH_Elev                                     ( 97:-0.17 +- 1.36 m
DPBE_C          DPBE_Grid for clay (CLAY = 1)                          ( 31: 0.16 +- 0.81 m)
DPBE_S          DPBE_Grid for sand (CLAY = *)                          ( 66:-0.32 +- 1.53 m)
PT_HEM          Peat thickness: TOPO - PBE_Grid                        ( 97: 3.18 +- 0.82 m)
DPT_HEM         PT_HEM - BH_Depth                                      ( 97: 0.12 +- 1.39 m)
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HRD results at boreholes (interpolated, picked from flightline grids):
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Expo_TB          Exposure rate (from Technical Report)
Expo_BC          Exposure rate with advanced background and cultural noise corrections
Muea_BH          -log(Expo_BC)/BH_depth                              ( 95: 0.26 +- 0.16 1/m)
PT_E_BH          -log(Expo_BC)/0.26 (0.26: mean of Muea_BH)          ( 97: 2.88 +- 1.61 m)
DPT_E_BH         PT_E_BH - BH_Depth                                  ( 97:-0.18 +- 1.60 m)
Muea_EM          -log(Expo_BC)/PT_HEM at boreholes                   ( 97: 0.25 +- 0.18 1/m)
PT_E_EM          -log(Expo_BC)/0.25 (0.25: mean of Muea_EM)          ( 97: 2.97 +- 1.67 m)
DPT_E_EM         PT_E_EM - PT_HEM                                    ( 97:-0.21 +- 1.77 m)
PT_E_HEM         -log(Expo_BC)/0.28 (0.28: minimum DPT_E_HEM at lines) ( 97: 2.84 +- 1.31 m)
DPT_E_HEM        PT_E_HEM - BH_Depth                                 ( 97:-0.22 +- 1.40 m)


HEM+HRD results at boreholes (interpolated, picked from flightline grids):
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CPT              (PT_HEM + PT_E_HEM)/2 (if diff < 2 m)               ( 97: 3.01 +- 0.68 m)
DCPT             CPT_Grid - BH_Depth                                 ( 97:-0.01 +- 1.13 m)
CPBE             TOPO - CPT_Grid                                     ( 97:-0.45 +- 0.78 m)
DCPBE            CPBE_Grid - BH_Elev                                 ( 97:-0.05 +- 1.14 m)
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