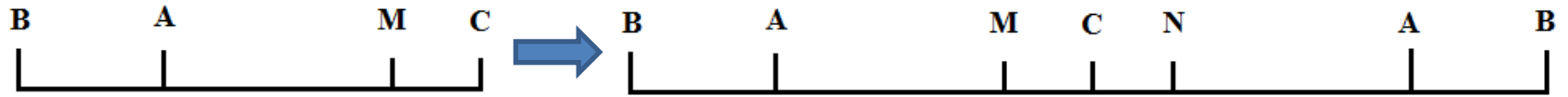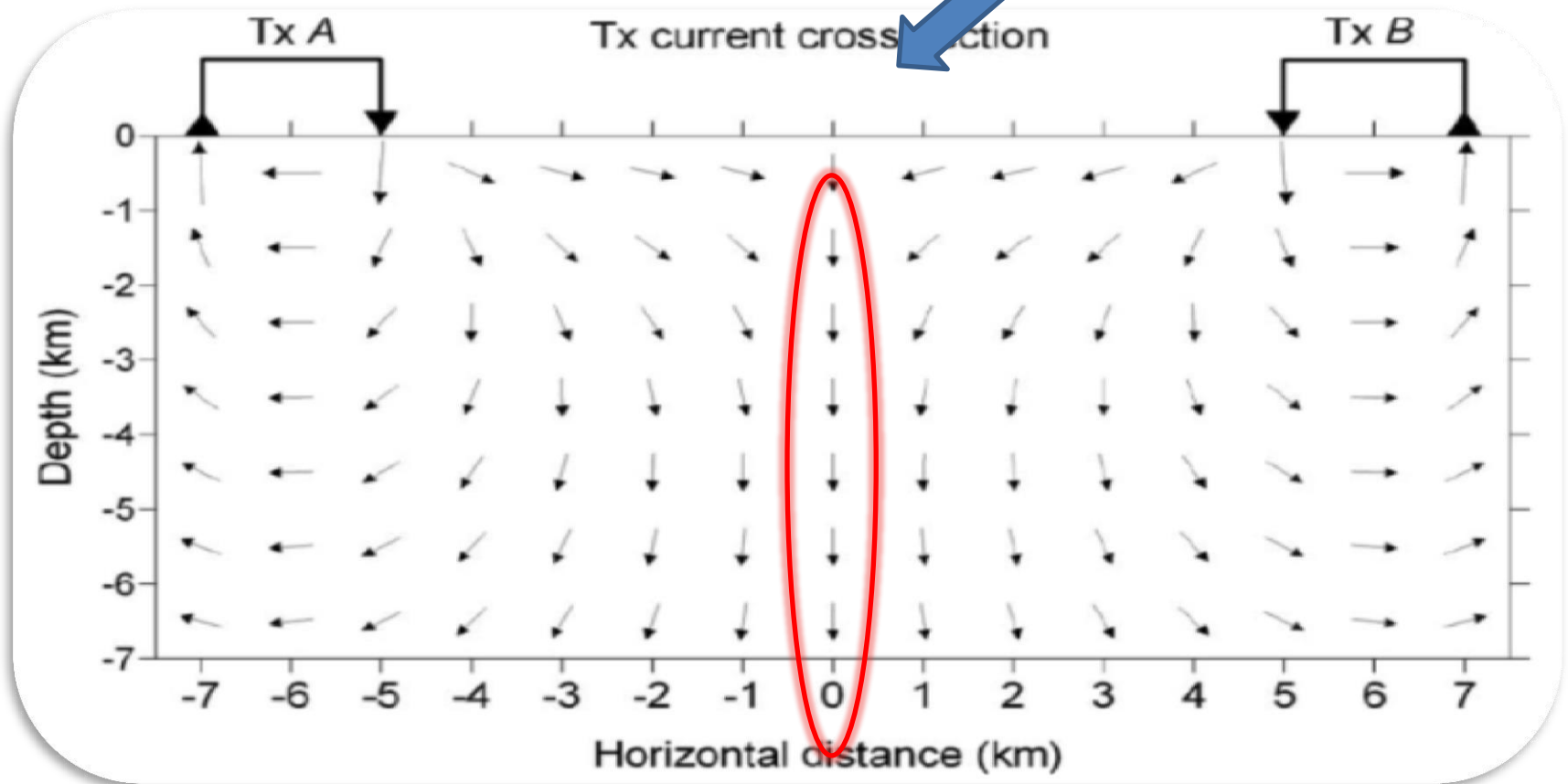# Some problems in IP data:

- electromagnetic coupling
- telluric noise
- contamination in channel links
- electrode polarization
- and small heterogeneous responses
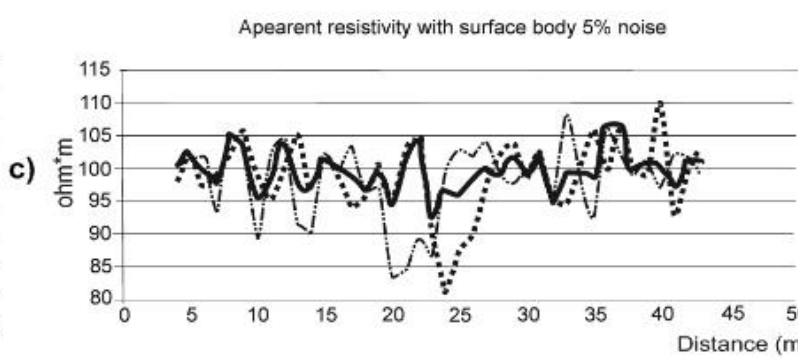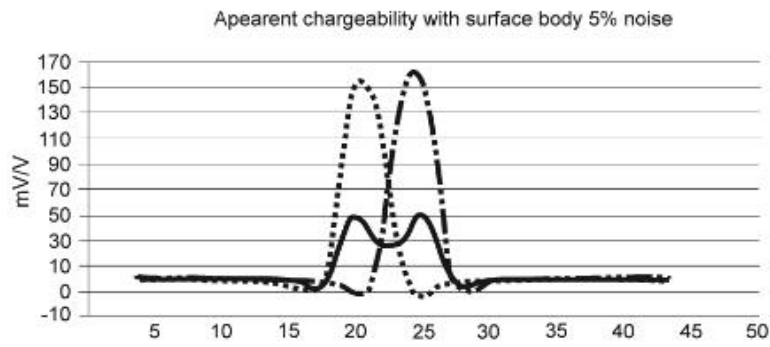
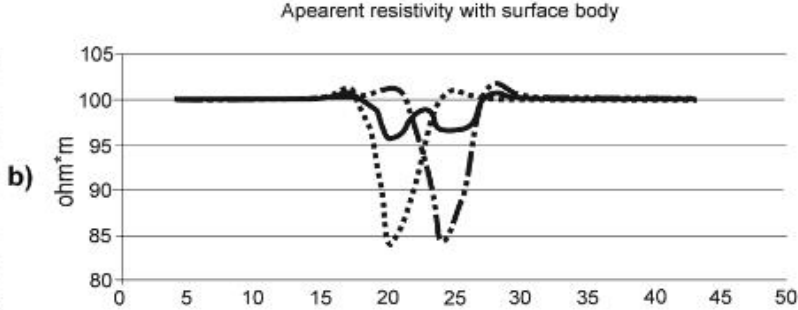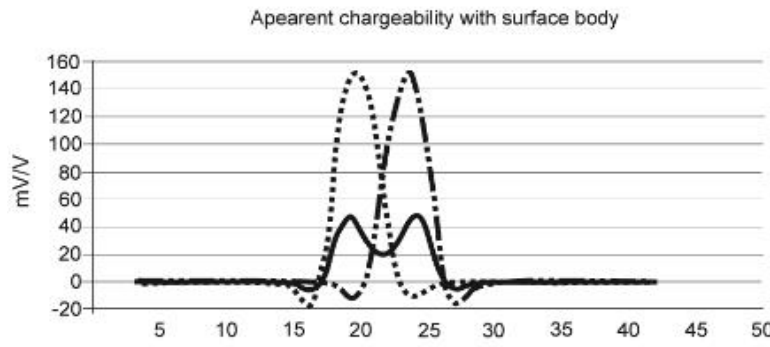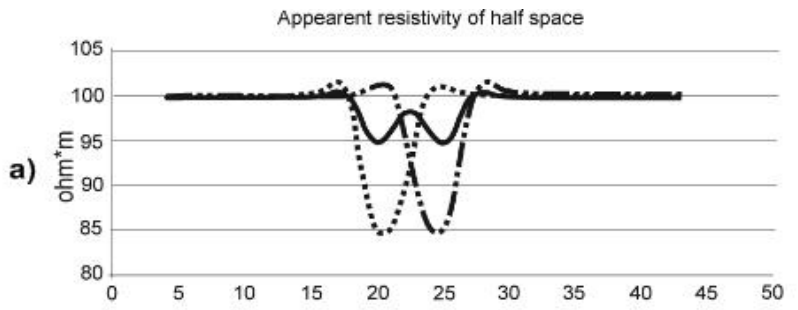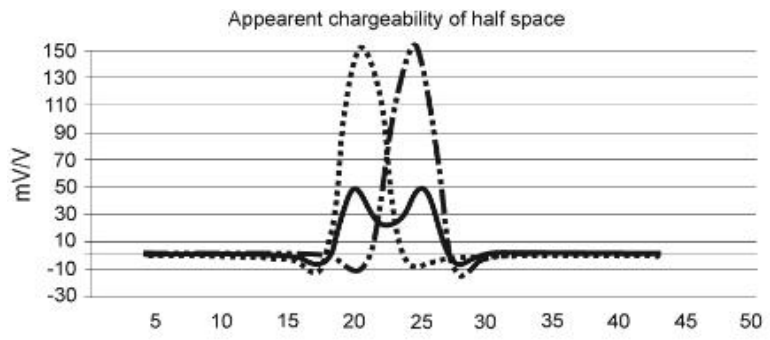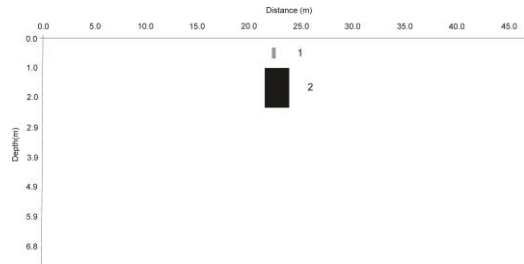# What are we doing to deal with?

Davydycheva *et al.*, 2006

Distance (m)

Depth(m)

Appearent chargeability of half space

mV/V

Appearent resistivity of half space

ohm*m

a)

Apearent chargeability with surface body

mV/V

Apearent resistivity with surface body

ohm*m

b)

Apearent chargeability with surface body 5% noise

mV/V

Apearent resistivity with surface body 5% noise

ohm*m

c)

Distance (m)

SPD   RIGHT FPD   LEFT FPD

left

right

left

right
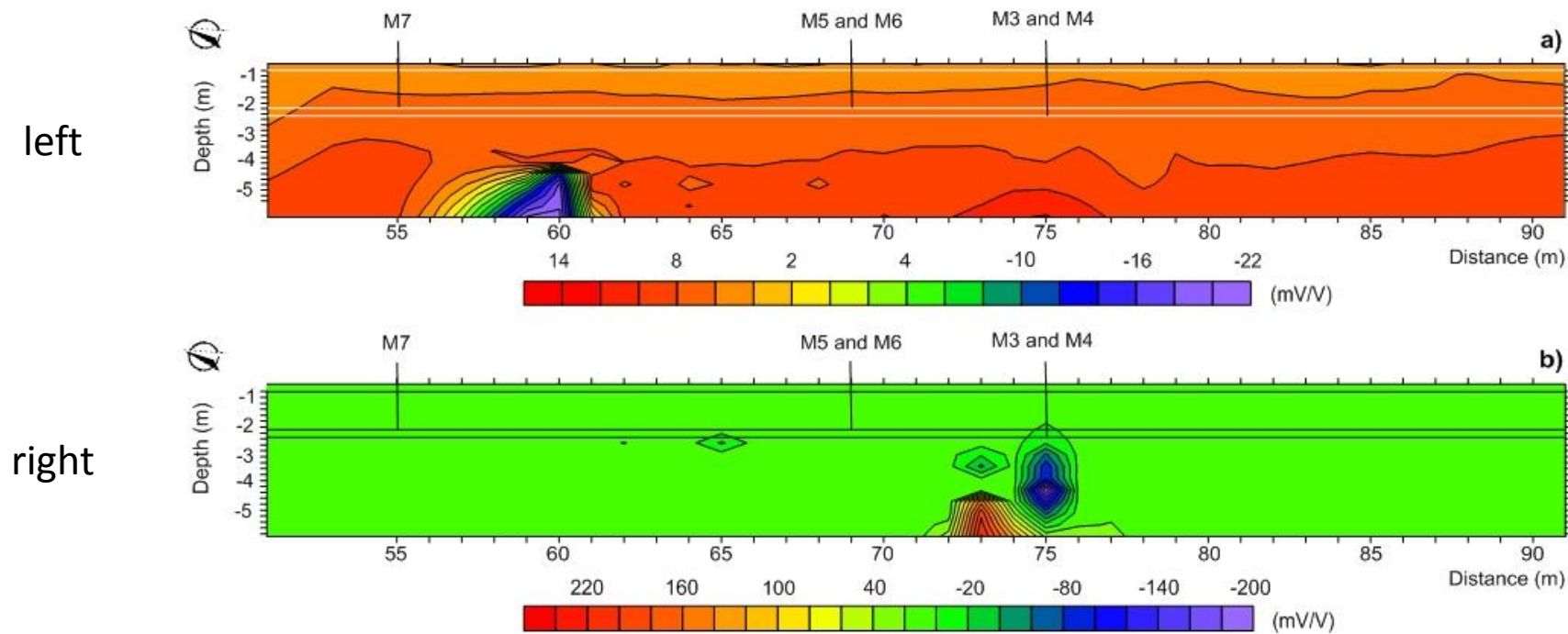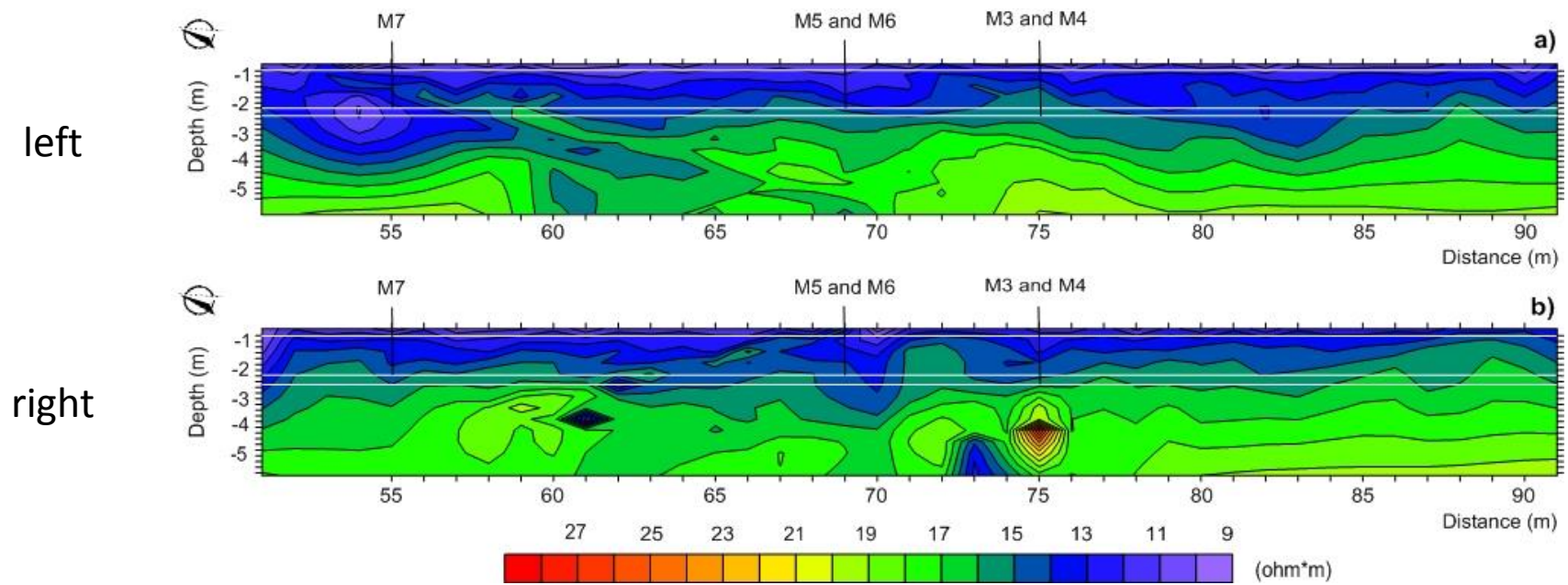
Focused sources with second potential differences

		M3	M4	M5	M6	M7
	x(m)	75	75	69	69	55
	Prof. (m)	**2.2**	**2.5**	**0.8**	**2.2**	**2.2**
Concentration (mg/kg)	**Ca**	6813.5	17007.5	33338	14466.5	21766.5
	Fe	26608	22335	22681.5	23970	19534
	Li	48	39	36	39.5	29.5
	Mg	5243.5	4746	4961.5	4777	4324
	Mn	517.5	342	288	423.5	213
	Sr	59.5	82.5	124	74.5	84.5
	Ti	1759.5	1590	1487	1653	1372
	Zn	62.5	57.5	48	52	38
Resistivity (Ohm*m)		18.8	15.8	12.7	15.2	14.1
Chargeability (ms)		63.9	108.9	5.1	6.4	5.9
clay (%)		46.3	39.1	52.3	45.4	33.5
sand (%)		26	24.9	24.5	22.4	29.8
silt (%)		27.7	36	23.3	32.2	36.7
HC (%)		40.6	37.1	34.2	37.7	35.9

Table 1. Metal content, texture and HC from soil samples, and their geoelectrical responses from *FS*.

Note: Cells highlighted in light gray correspond to minimum values and with dark gray maximum values.