

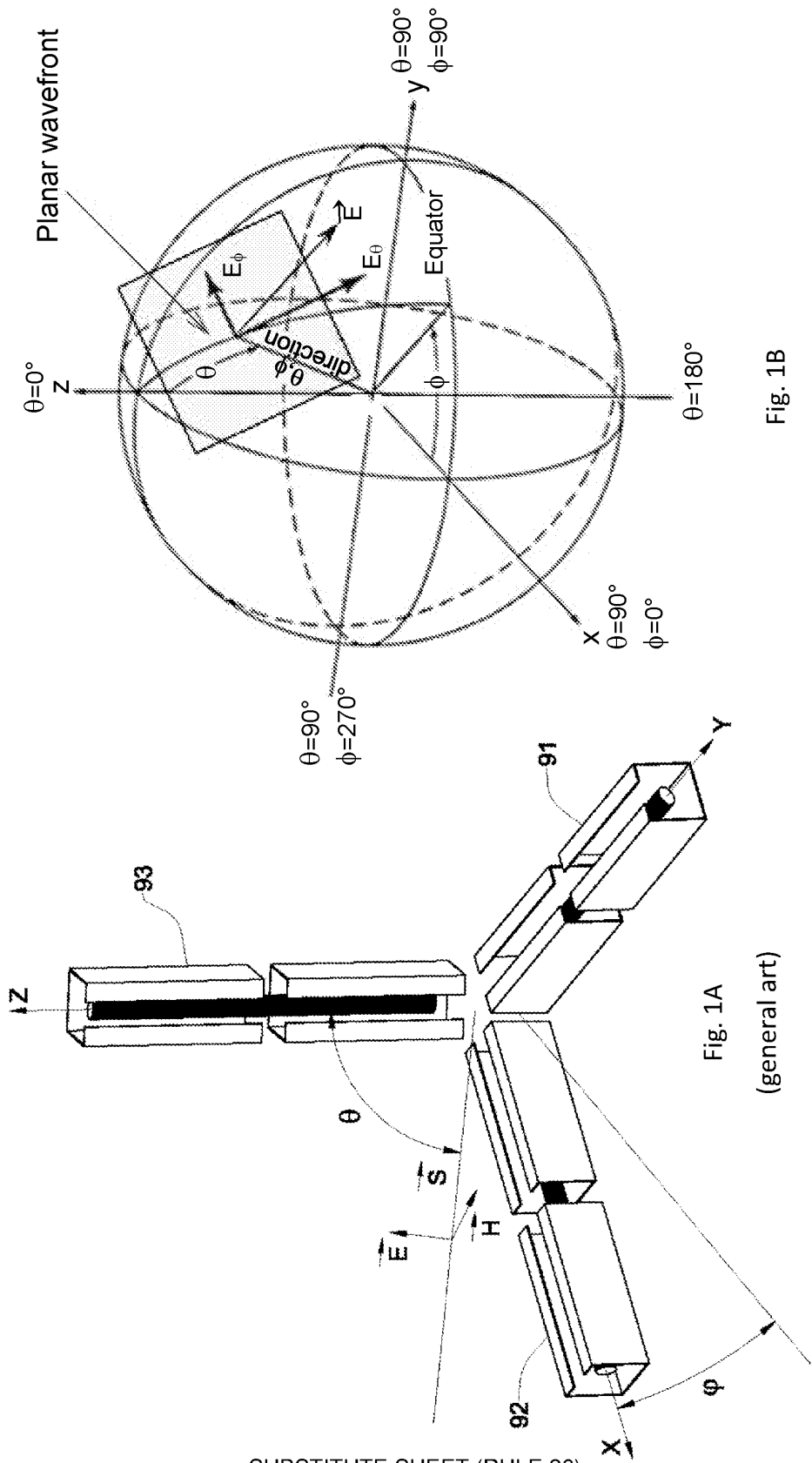


Fig. 1B

Fig. 1A
(general art)

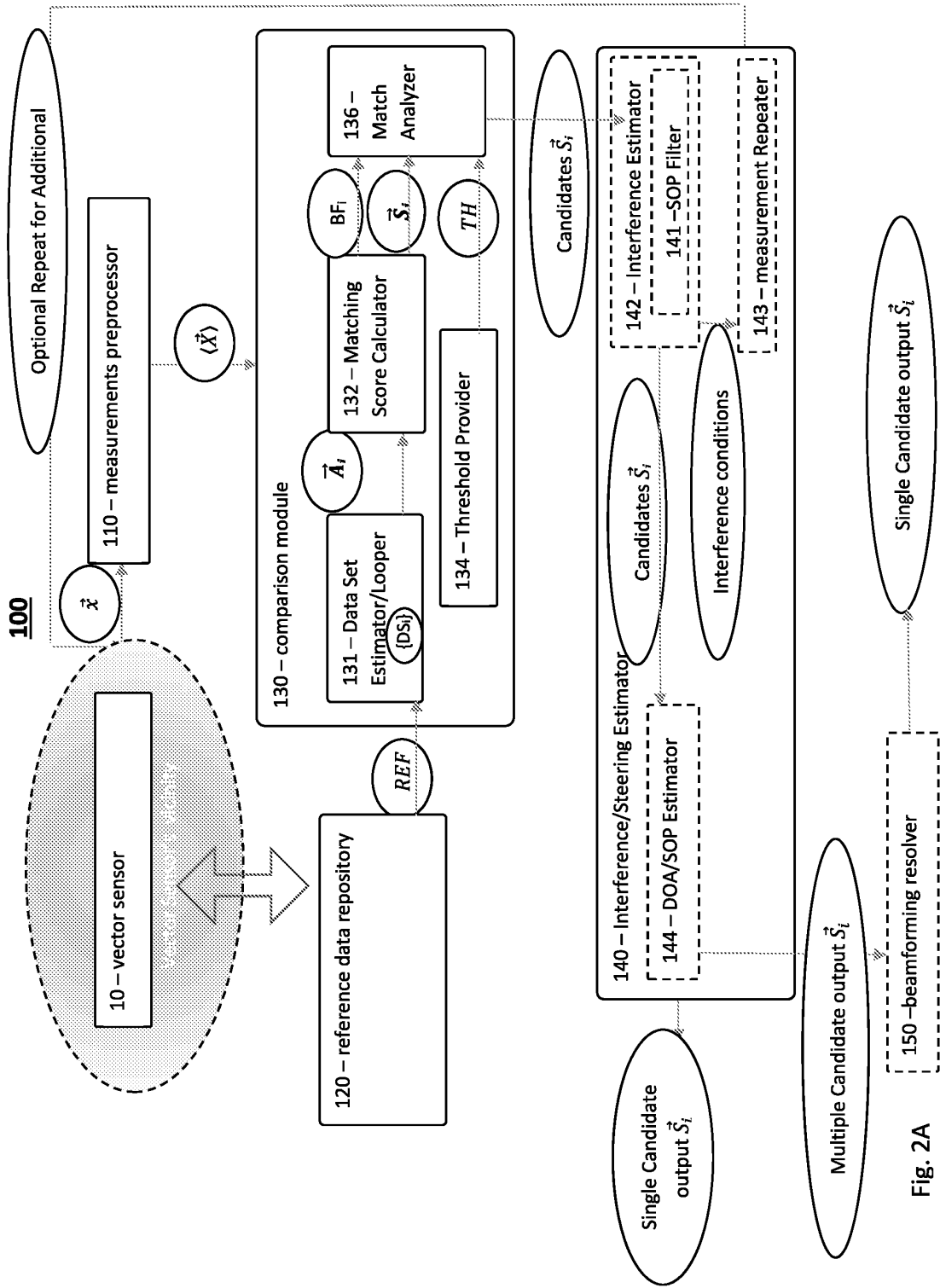


Fig. 2A

200 – A method for determining Interference conditions and DOA and/or SOP parameters

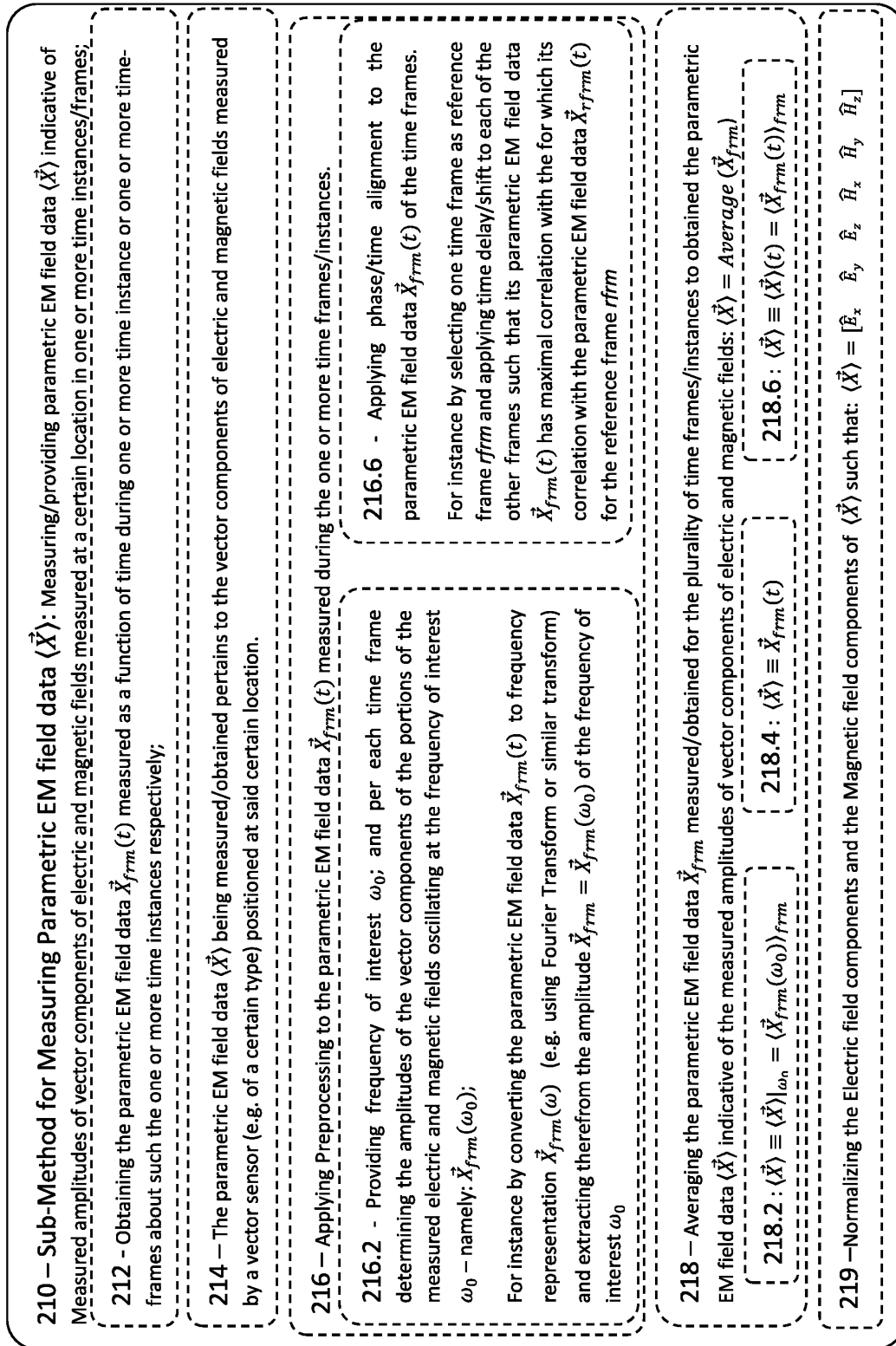


Fig. 2B

Method 200 – (continued)

220 – Sub-Method for Providing Reference Data: Providing/computing reference data **REF** = $\{[\vec{A}_i, \vec{S}_i]\}$ including a plurality of reference data sets **REF** = $\{\mathbf{DS}_i\}$. Each data set $\mathbf{DS}_i$ includes: a reference steering parameters $\vec{S}_i$ indicative of at least a respective direction of arrival, $\vec{S}_i = [\theta_i, \phi_i]$, and a corresponding reference parametric EM field data $\vec{A}_i = [\hat{e}_x^i, \hat{e}_y^i, \hat{e}_z^i, \hat{h}_x^i, \hat{h}_y^i, \hat{h}_z^i]$ presenting reference vector components of Electric and Magnetic fields as would be measured by a vector sensor (e.g. of a certain type) impinged by EM wavefront propagating with the parameters $\vec{S}_i$.

221 – Providing/computing the reference data **REF**, such that the reference parametric EM field data $\vec{A}_i$ of each reference data set $\mathbf{DS}_i$, is normalized (e.g. by normalizing the vector components of the electric field and normalizing the vector components of the magnetic field)

222 – Providing/computing the reference data **REF** = $\{[\vec{A}_i, \vec{S}_i]\}$ such that the reference steering vectors' parameters $\vec{S}_i = [\theta_i, \phi_i, \gamma_i, \tau_i]$ of the data sets $\mathbf{DS}_i$ also indicate the reference State of Polarization (SOP) parameters, γ_i, τ_i , of the corresponding reference parametric EM field data $\vec{A}_i$;

223 – Providing/computing the reference data **REF** such that the reference parametric EM field data $\vec{A}_i$ in each reference data set $\mathbf{DS}_i$, presents a generalized vector of the sensing of an EM field waveform having the corresponding steering parameters $\vec{S}_i$ by the vector sensor.

223.1 – providing/computing the parametric EM field data $\vec{A}_i$ based on an analytic model $\vec{A} = [D_i][DOA_i][SOP_i]$ where D_i may be a none unity response/distortion matrix D_i characterizing the response and optionally EM distortions that are applied to the measurement of EM field waveform with steering parameters $\vec{S}_i$ by the vector sensor itself and/or by nearby objects (or D may be unity).

223.3 – Providing/computing the parametric EM field data $\vec{A}_i$ based on results of empirical measurements performed on the vector sensor (e.g. placed at a designated location of interest) to determine the response and optionally EM distortions that would be applied to the sensing of EM field waveform with steering parameters $\vec{S}_i$ by the vector sensor itself and/or by objects in its

224.2 – Providing/computing the parametric EM field data $\vec{A}_i$ such that the reference data sets $\{\mathbf{DS}_i\}$ are spanned over the frequency domain and one or more reference data sets $\{\mathbf{DS}_i\}$ pertain to the response of the vector sensor to a certain frequency ω such that: $[D_i] \rightarrow [D_{i,\omega}]; \vec{A}_i \rightarrow \vec{A}_{i,\omega}$

224.6 – Providing/computing the parametric EM field data $\vec{A}_i$ such that the reference data sets $\{\mathbf{DS}_i\}$ are spanned over the time domain and one or more reference data sets $\{\mathbf{DS}_i\}$ pertain to the response of the vector sensor to a certain temporal waveform shape δ : $[D_i] \rightarrow [D_{i,\delta}]; \vec{A}_i \rightarrow \vec{A}_{i,\delta}(t)$

Fig. 2C

Method 200 – (continued)

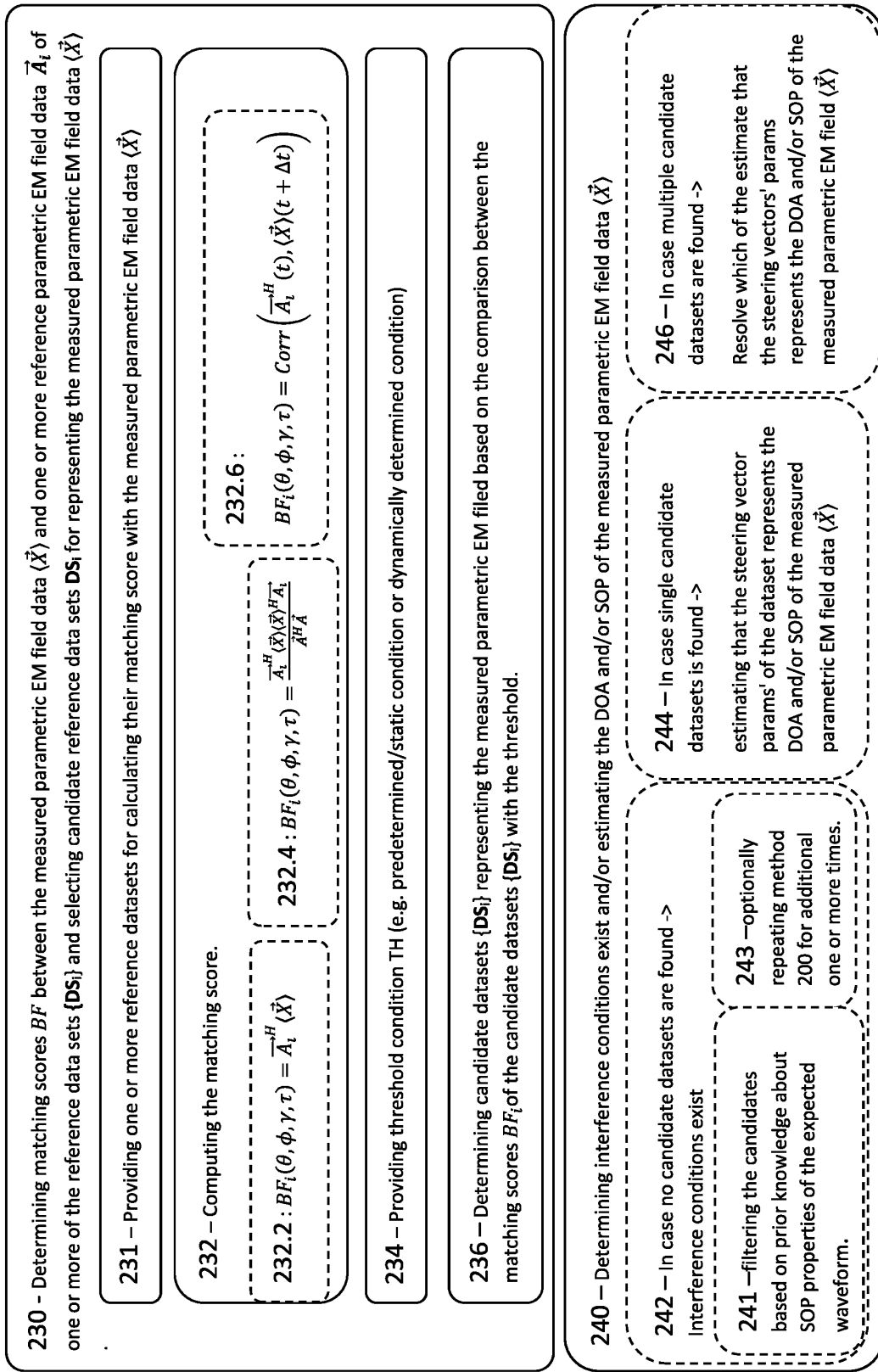


Fig. 2D

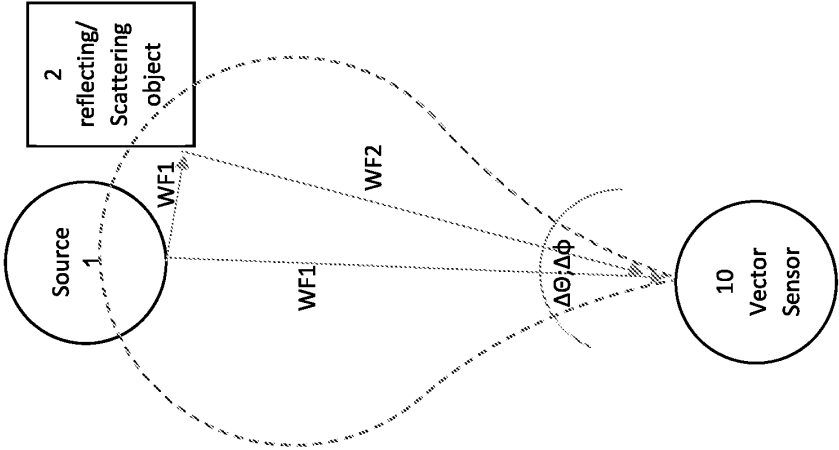


Fig. 3B

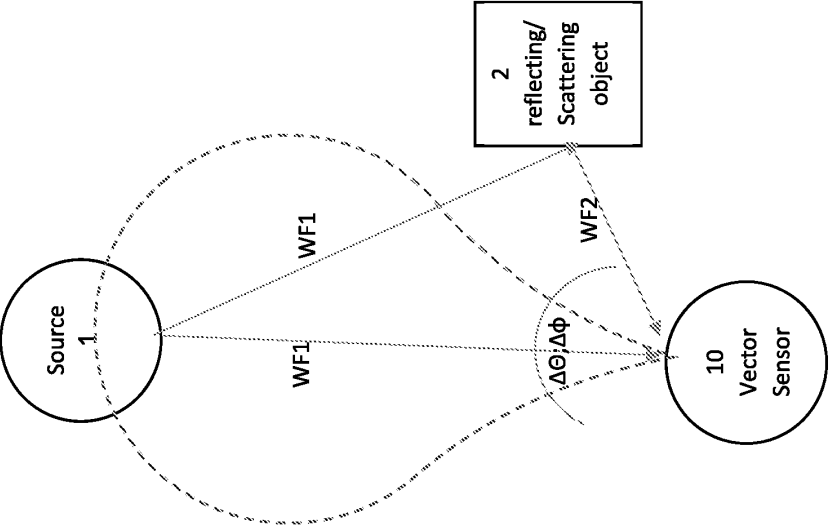


Fig. 3A

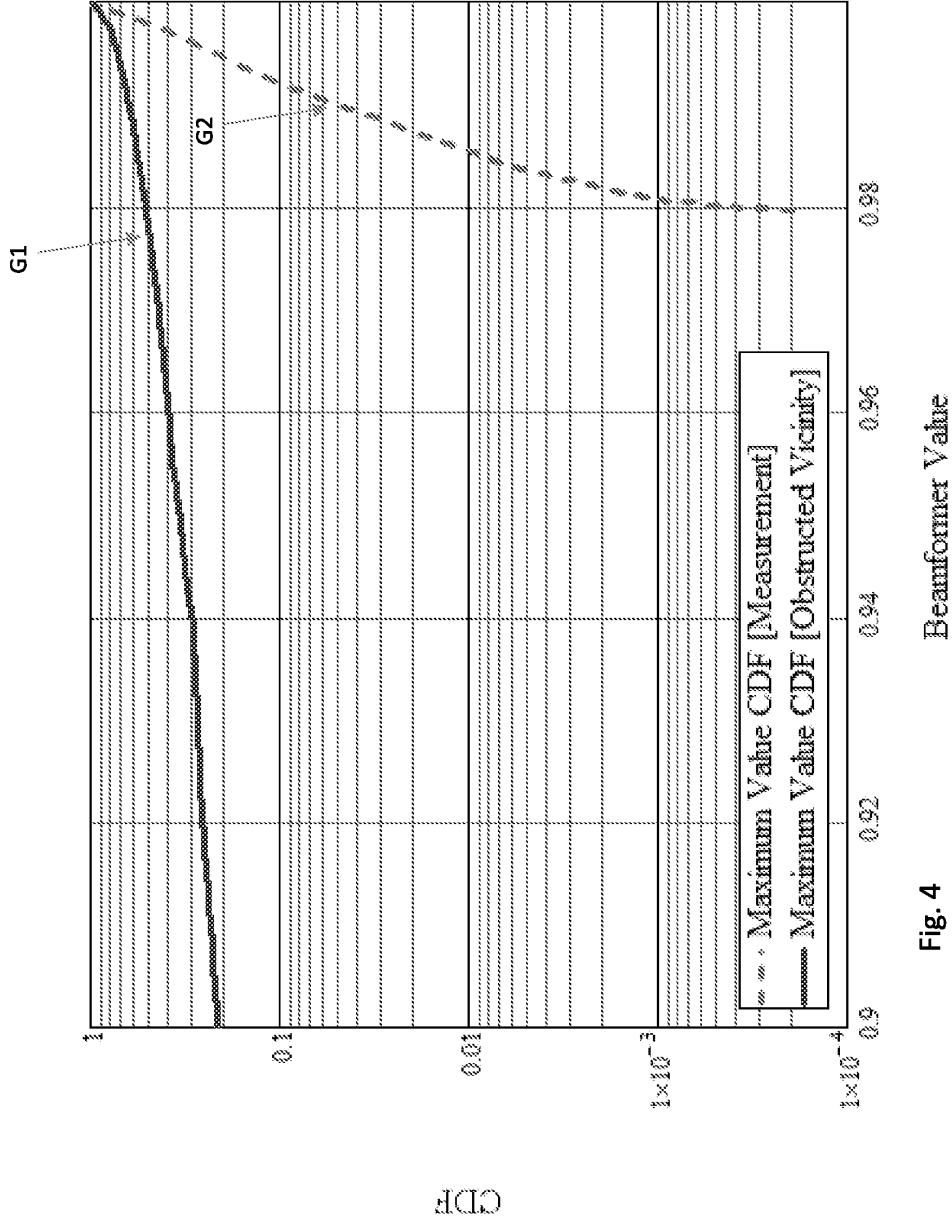


Fig. 4