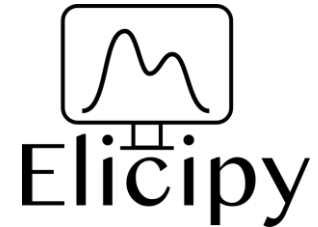


Expert elicitation - Sangay

25-Oct-2021



Experts' weights

Weighting scheme for expert elicitation

In our elicitation exercise we followed the Classical Model (CM) and the Expected Relative Frequency (ERF) weighting schemes. For the CM, the estimates of 5th percentile, median and 95th percentile for each seed and target question are used to define “maximum entropy distributions” by assuming uniform probability within each couple of quantiles. A 10% overshoot is assumed at both ends of this percentile range and allow to define the group-wise minimum and maximum values of the uncertainty distribution. Uniform probability is also assumed across the variable 10% intrinsic range extensions at each end (Bevilacqua et al. 2015; Tadini et al. 2017, 2021).

The seed items are used to define two scores, the statistical accuracy (also called “calibration”) and the informativeness (Cooke 1991; Aspinall and Cooke 2013). The calibration represents an inverse distance between the empirical distribution of the real answers to the seed questions, and the probability distributions implied by the 5th, median and 95th percentiles assessed by the experts per item (Cooke 1991; Bevilacqua 2016). In contrast, the expert’s informativeness score is the degree to which their uncertainty distributions are concentrated; that is, the smaller the distance between the 5th and the 95th percentiles, the more an expert is informative. The resulting weights (proportional to the product of calibration/statistical accuracy and informativeness) were then applied to linearly pool experts’ answers to the target questions.

The ERF pooling method (Flandoli et al. 2011) measures instead the likelihood of “accurate” judgments, i.e. those relatively close to the true value of a question. Variances of the performance scores, which indicate how they differ, tend to be lower with ERF as compared to the CM. In addition, the ERF approach considers triangular functions and quantile pooling when defining the DMs.

List of experts

First name	Last name	Institution	Country
Marco	Almeida	IG	Ecuador
Alvaro	Aravena	UCM	Chile
Philipson	Bani	LMV	France
Jean	Battaglia	LMV	France
Marco	Córdova	IG	Ecuador
Mattia	de' Michieli Vitturi	INGV -PI	Italy
Marjorie	Encalada	IG	Ecuador
Elizabeth	Gaunt	IG	Ecuador
Stephen	Hernandez	IG	Ecuador
Silvana	Hidalgo	IG	Ecuador
Patricia	Mothes	IG	Ecuador
Fernanda	Naranjo	IG	Ecuador
Olivier	Roche	LMV	France
Josué	Salgado	IG	Ecuador
Mario	Ruiz	IG	Ecuador
Pablo	Samaniego	LMV/IG	France/Ecuador
Francisco	Vasconez	IG	Ecuador
Benjamin	van Wyk de Vries	LMV	France

Experts' weights

Expert ID	Cooke	ERF
Exp1	Below threshold	5.84
Exp2	Below threshold	4.88
Exp3	3.22	6.73
Exp4	2.97	8.99
Exp5	18.34	7.22
Exp6	Below threshold	12.72
Exp7	22.87	8.04
Exp8	Below threshold	4.00
Exp9	2.33	3.86
Exp10	19.34	4.53
Exp11	Below threshold	4.51
Exp12	19.93	3.33
Exp13	Below threshold	4.92
Exp14	11.01	3.89
Exp15	Below threshold	3.21
Exp16	Below threshold	4.55
Exp17	Below threshold	6.38
Exp18	Below threshold	2.40

Equal weight = 5.56

For Cookes' method, below threshold weight does not mean zero score. It simply means that this expert's knowledge was already contributed by other experts and adding this expert would not change significantly the results.

Seed Answers

KEY

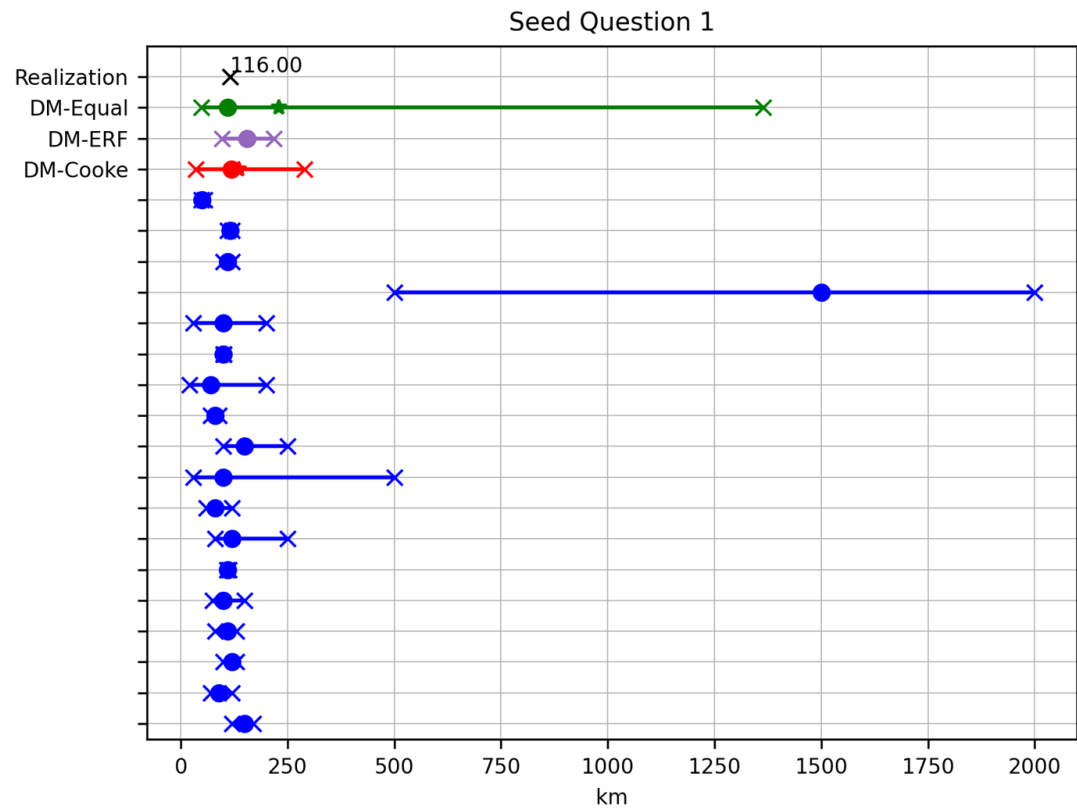
Coloured crosses : 5th/95th percentile values

Coloured circles : median values

Coloured stars : mean values

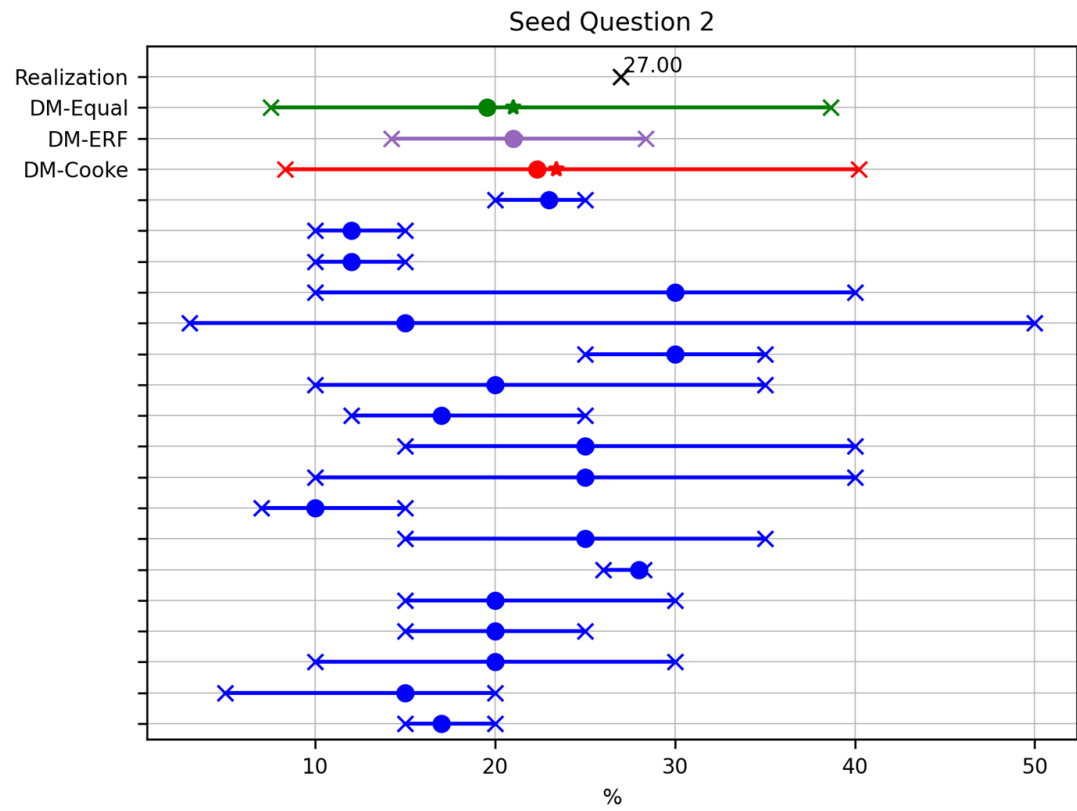
Ecuadorian arc width

What is the maximum width of the Ecuadorian arc, measured from Sumaco to Guagua Pichincha according to the IGM data (in km)?



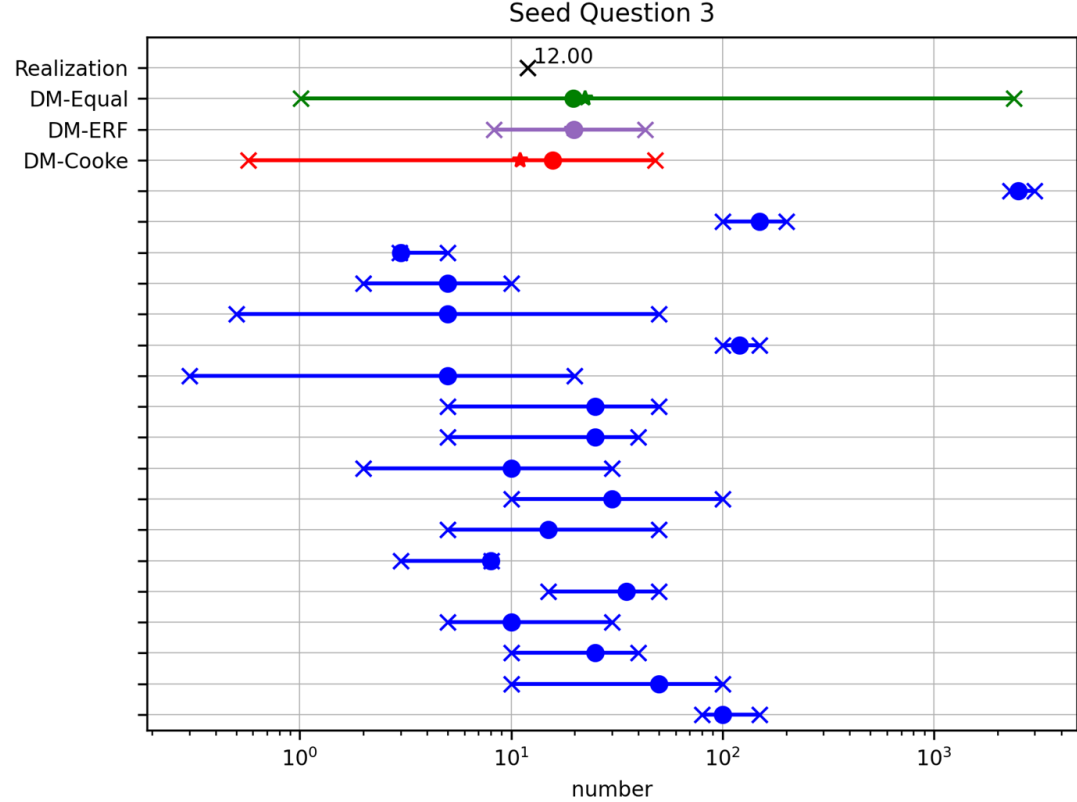
Percentage of potentially active volcanoes

Considering the 84 volcanoes of continental Ecuador cited in Bernard and Andrade (2011), what percentage of them are considered at least potentially active, meaning that they have had at least one eruption within the last 11 700 years (in %)?



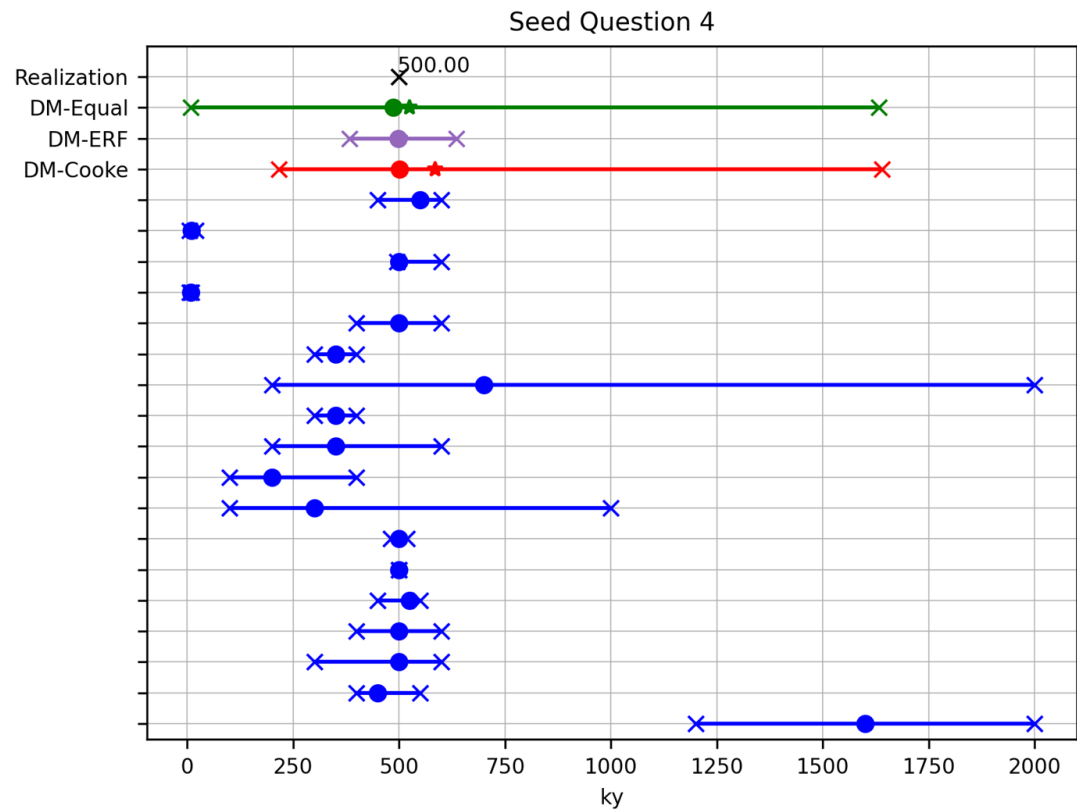
Recurrence rate of VEI3+

According to Santamaría (2017)'s catalogue of historical eruptions, what is the recurrence rate of VEI ≥ 3 eruptions in continental Ecuador (in years)?



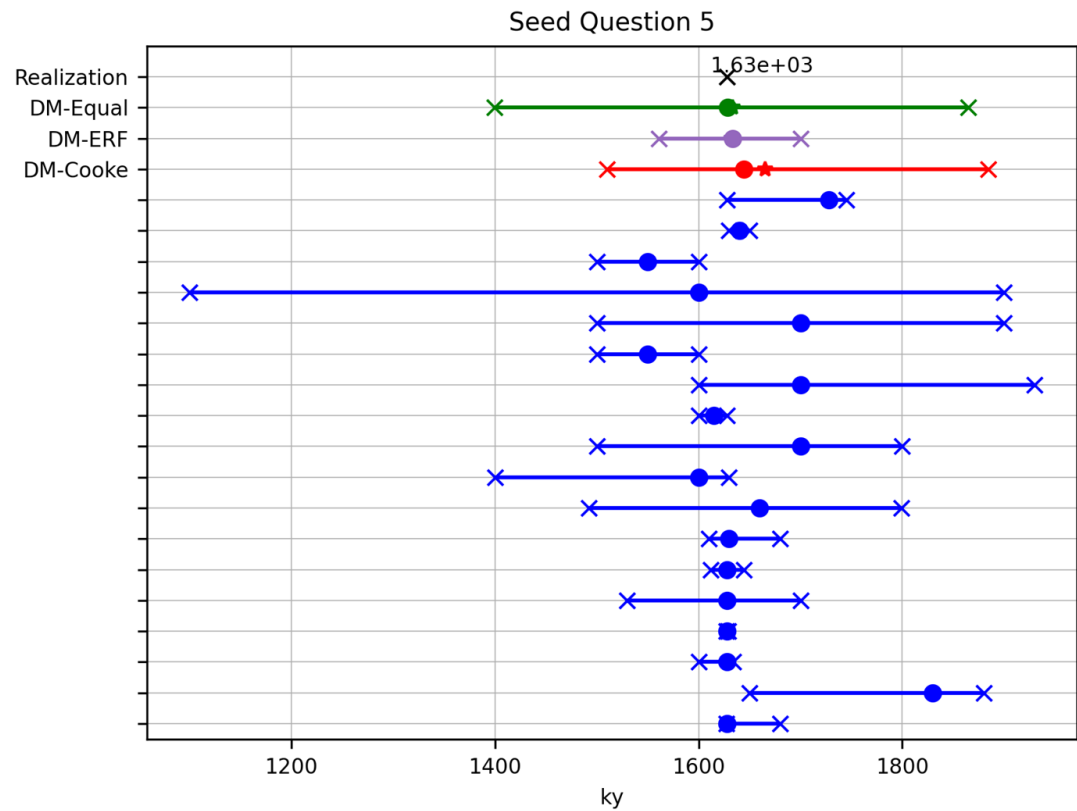
Age Sangay

According to Monzier et al (1999),
how old is Sangay volcano (in ky)?



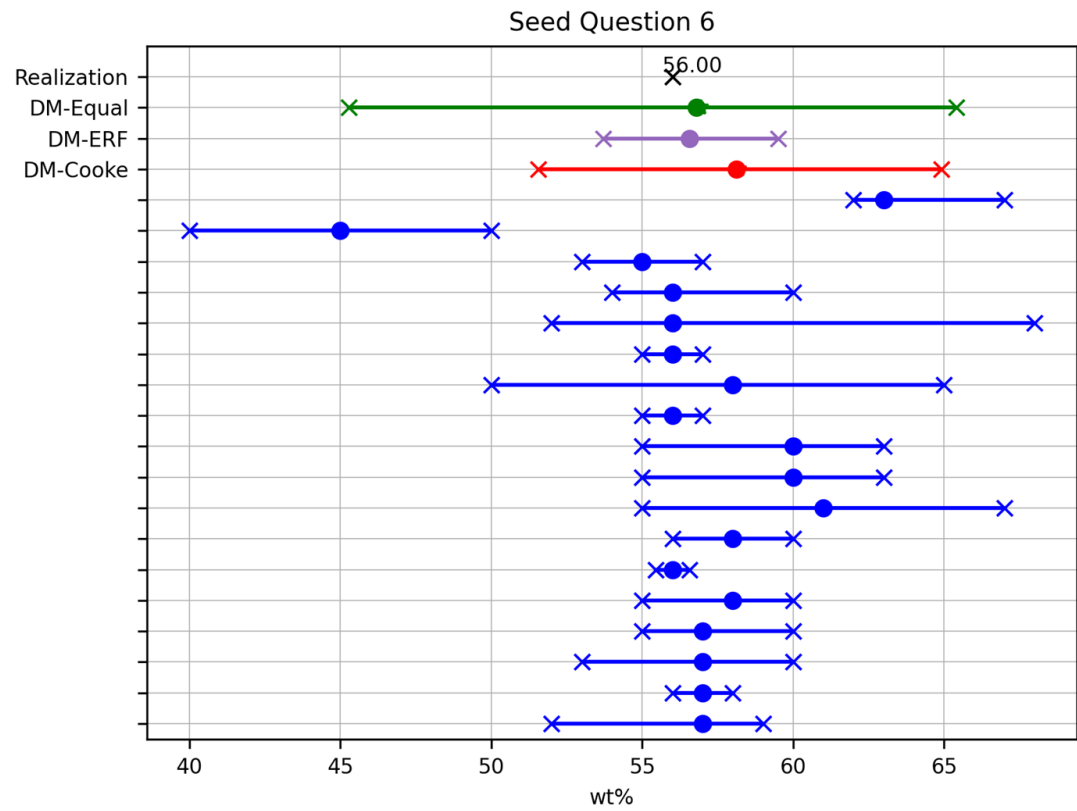
First reported eruption at Sangay

According to the Global Volcanism Program (2013), in what year was reported the first eruption at Sangay?



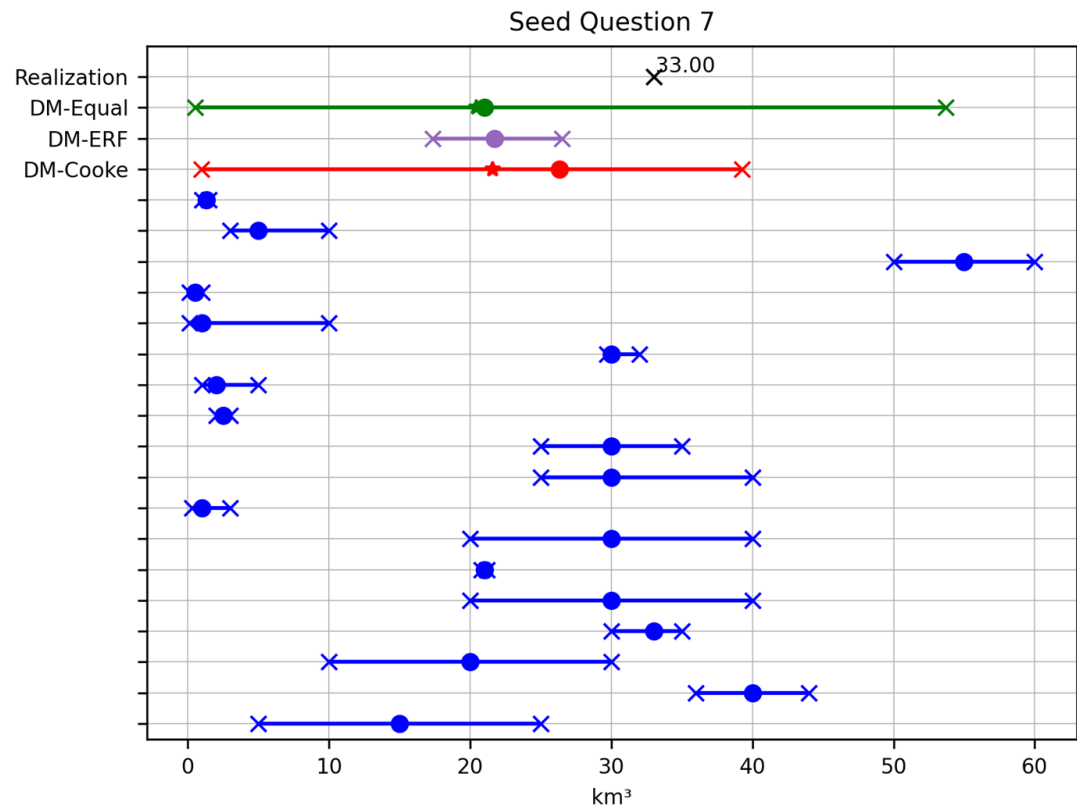
Median SiO2 content of Sangay III products

According to the geochemical database from Schiano et al. (2010), what is the median SiO2 content of Sangay III (~14 ka-present) eruptive products (in wt%)?



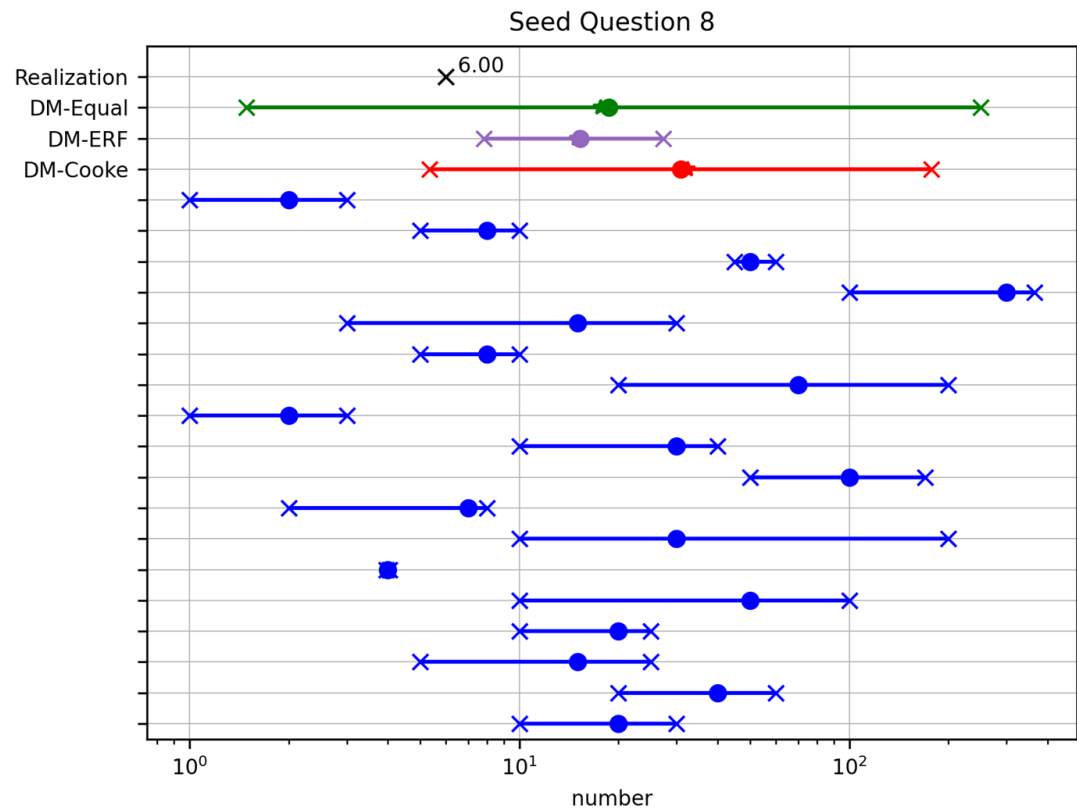
Size of 30 ka debris avalanche at Sangay

According to the study of Valverde et al. (2021), what is the size of the large debris avalanche that affected Sangay volcano (in km³)?



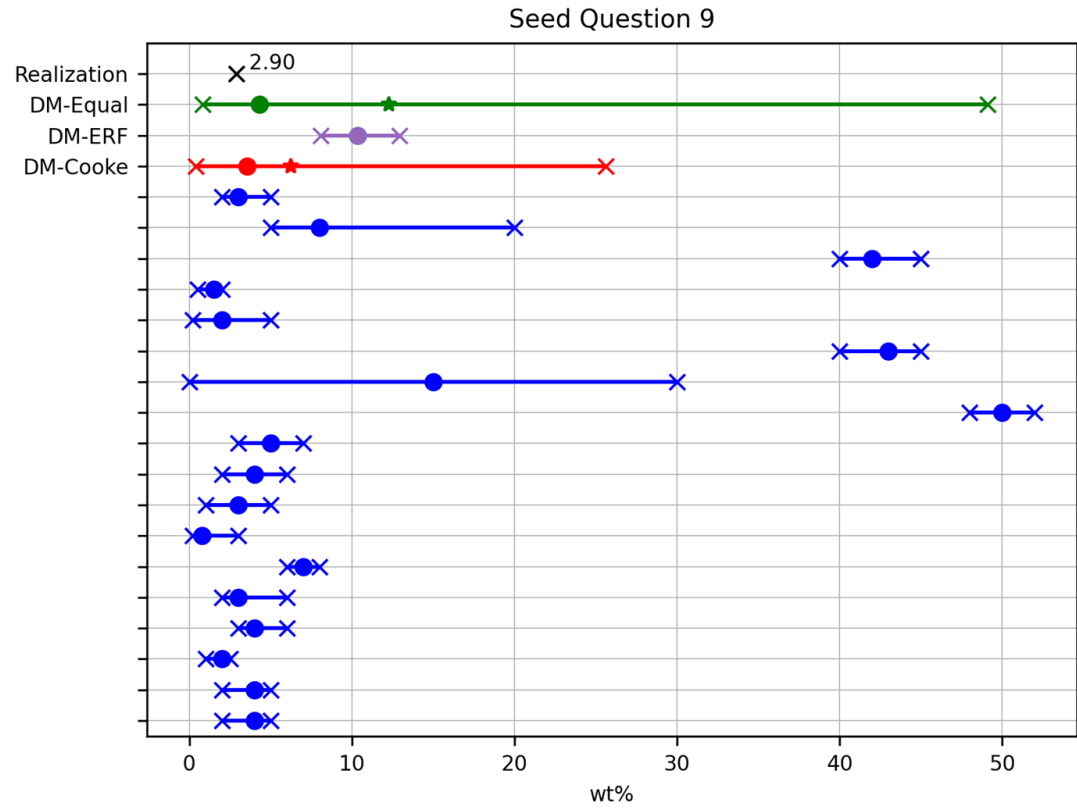
Days with strong ash fallout around Sangay

According to the SNGRE, how many days with “strong ash fallout” (official SNGRE statement) were reported in provinces close to the volcano during the last eruptive period (2019-2021)?



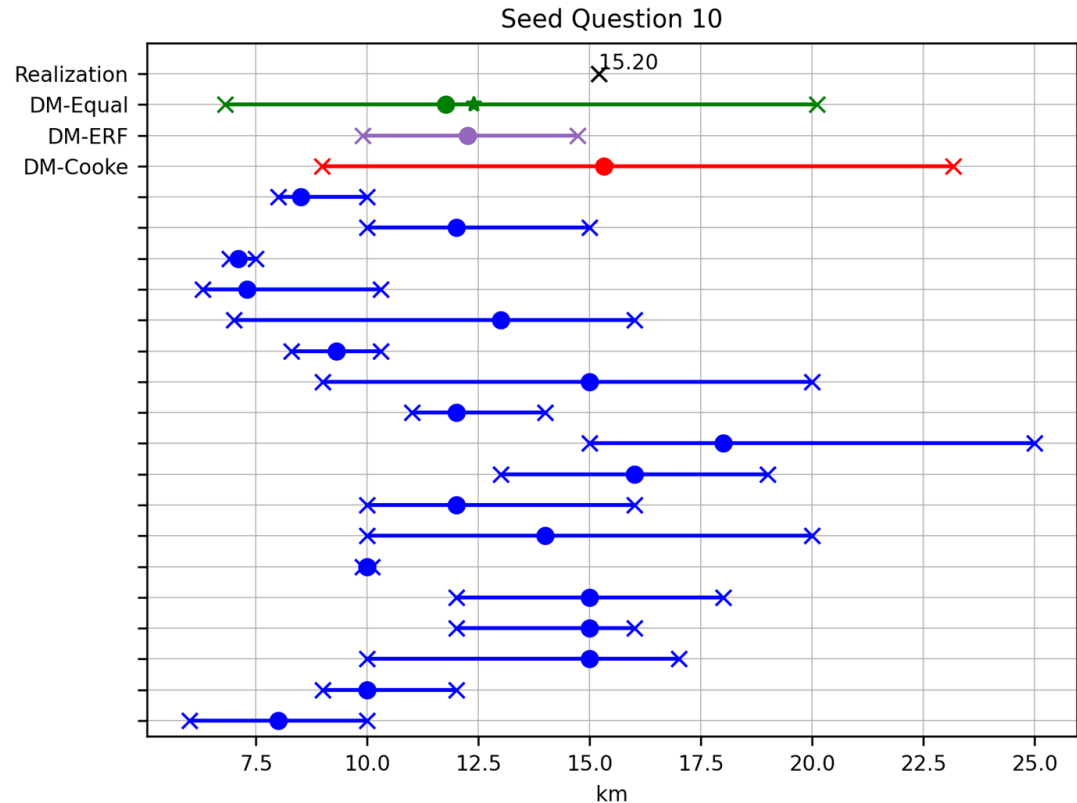
Average water content of primitive magmas at Sangay

According to Narváez et al (2018),
what is the average water content of
the most primitive magma of Sangay
volcano (SAN20B) (in wt%)?



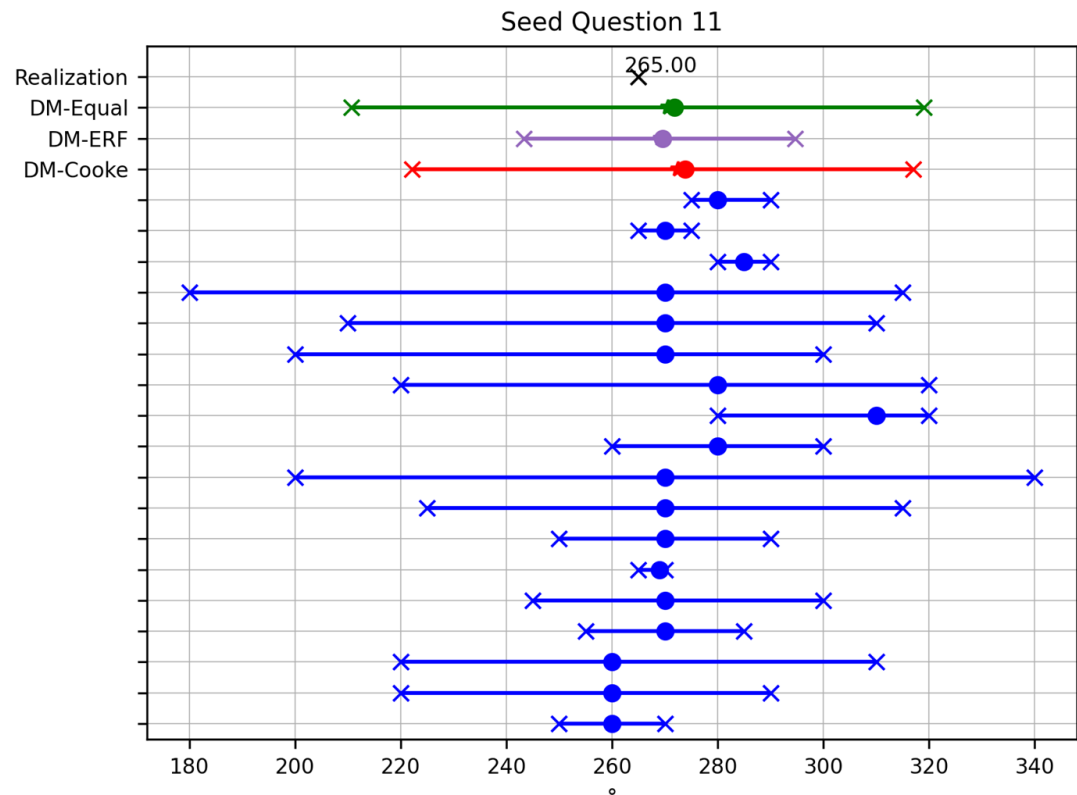
Max column height at Sangay 2004-2021

According to the Washington VAAC,
what is the maximum column height
observed at Sangay volcano from
2004 to 2021 (in km above sea level)?



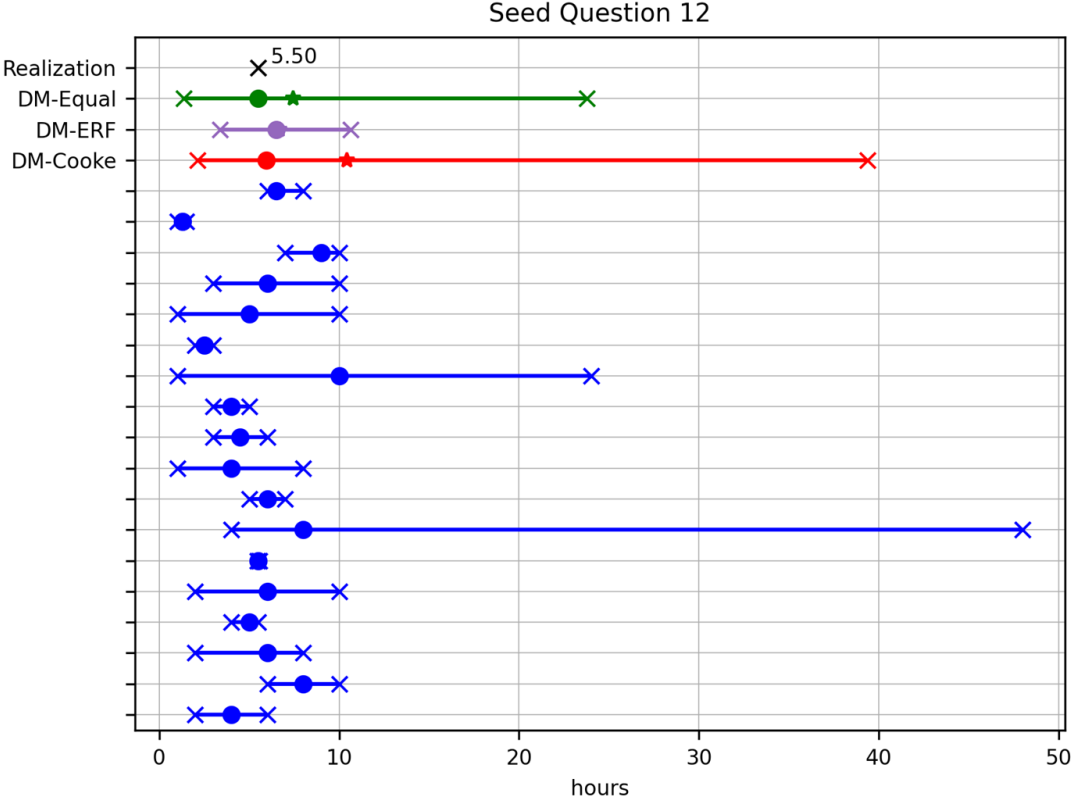
Median direction of ash clouds at Sangay 2004-2021

According to the Washington VAAC, what is the median direction of the ash clouds from Sangay volcano from 2004 to 2021 (in ° compared to the North)?



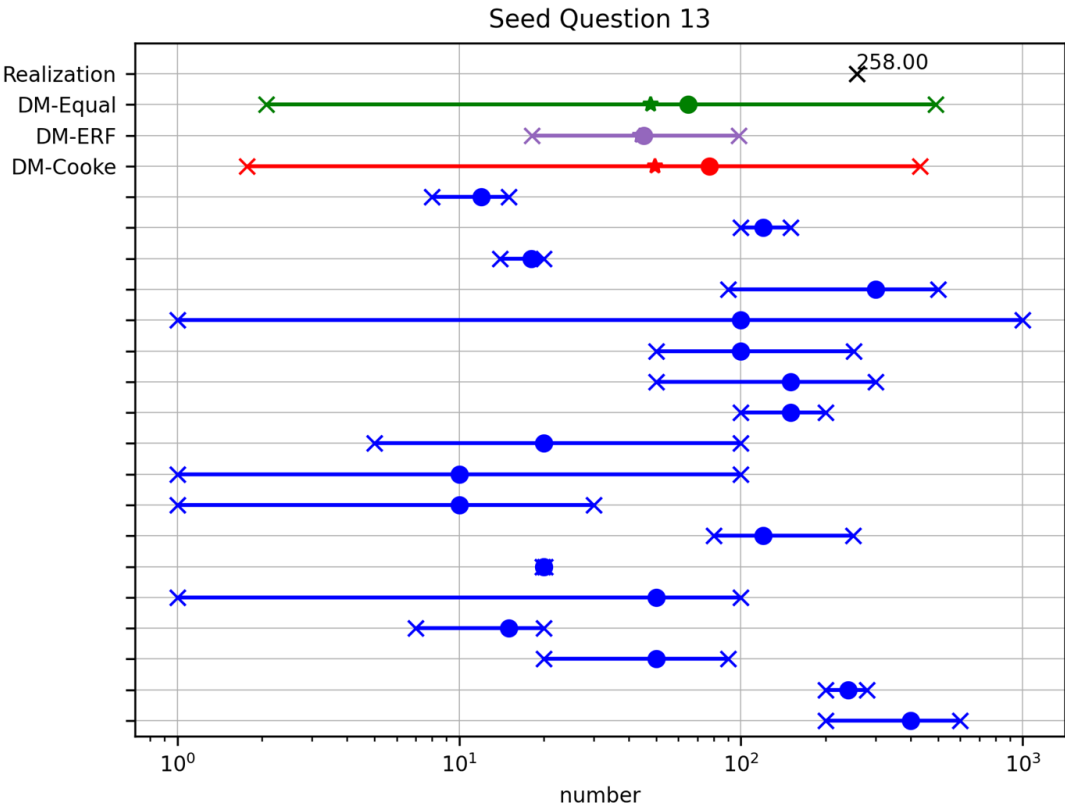
March 2021 eruption duration at Sangay

According to the IG-EPN Special Report n°2021-001 on Sangay volcano, how long did the March 05-06, 2021 eruption lasted (in hour)?



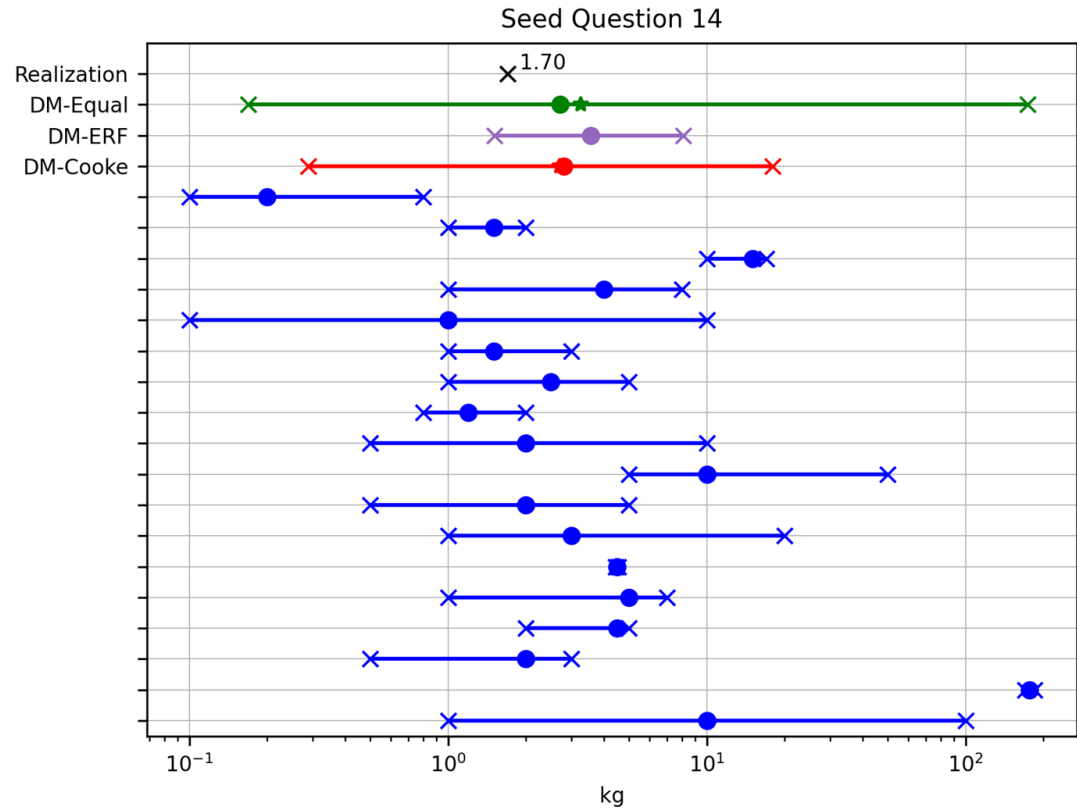
Max daily infrasound detections at Sangay 2006-2013

According to Ortiz et al (2021), what was the maximum number of detections per day associated to Sangay’s activity registered in the RIOE infrasound array from 2006 to 2013?



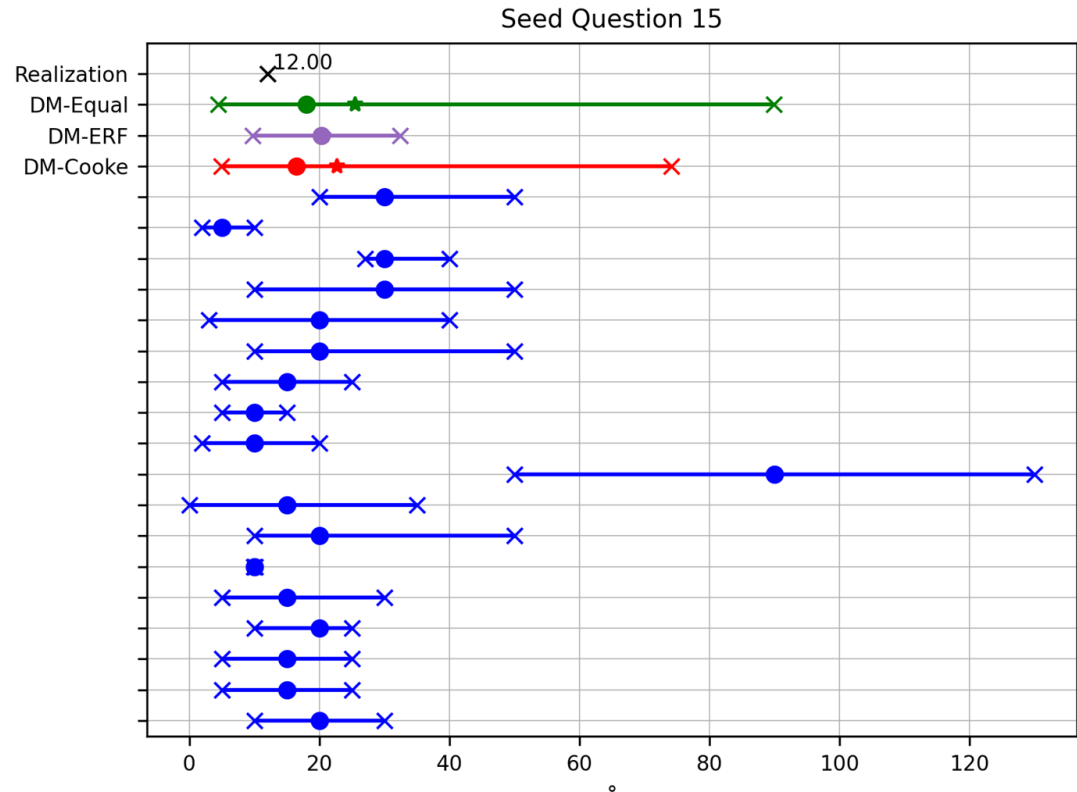
Tot mass of tephra fallout of Sep 2020 eruption at Sangay

According to the IG-EPN report on the ash fallout from the September 20, 2020 eruption (published on 25/09/2020), what was the total mass of ash estimated using Pyle (1989)'s exponential law (in 10^9 kg)?



Discrepancy simulation/field data of Sep 2020 eruption at Sangay

According to Bernard et al (2021), what was the discrepancy between the Ash3D simulation and the actual fallout deposit on the direction of the plume main dispersal axis from the September 20, 2020 eruption (in °)?



Target Answers

KEY

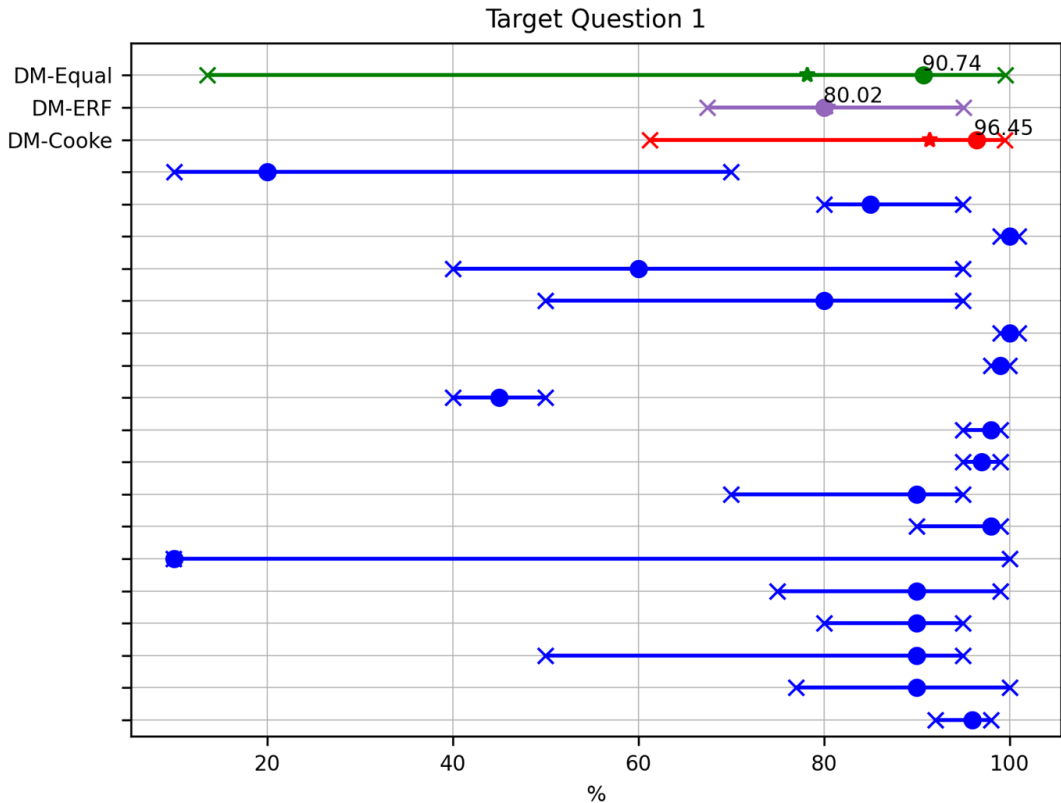
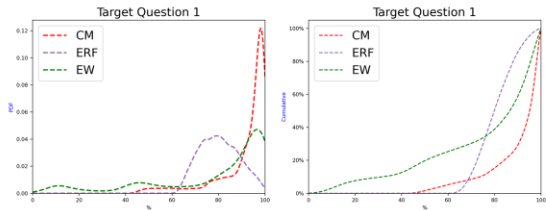
Coloured crosses : 5th/95th percentile values

Coloured circles : median values

Coloured stars : mean values

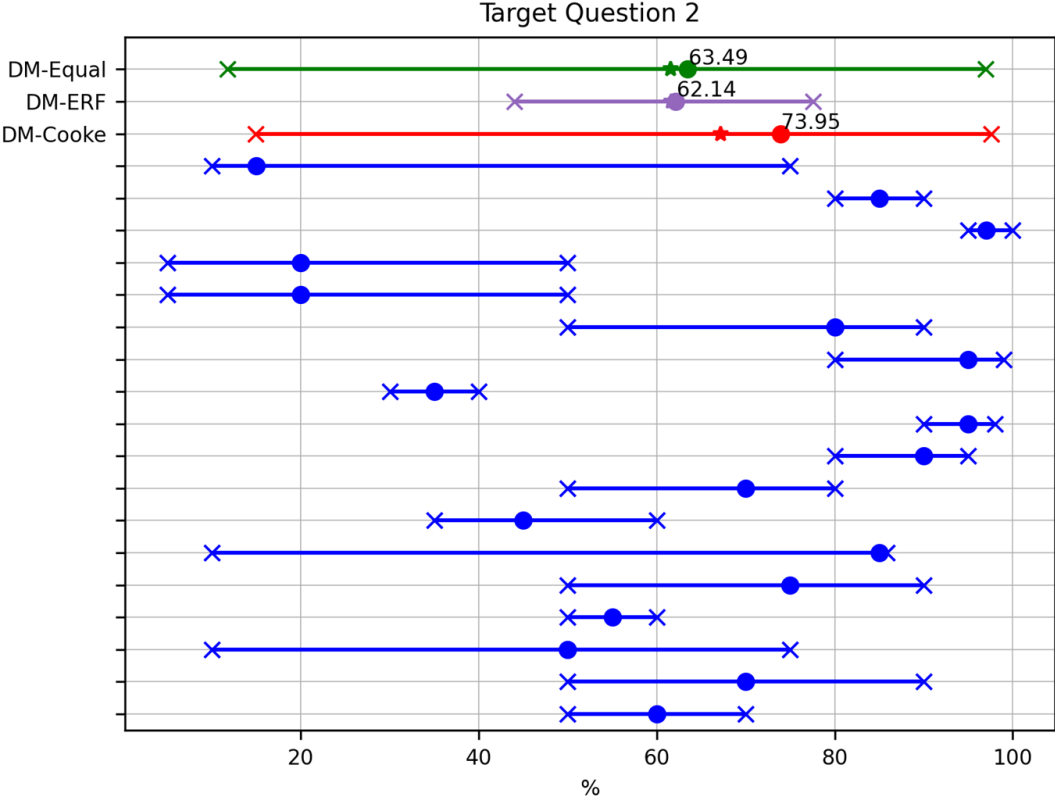
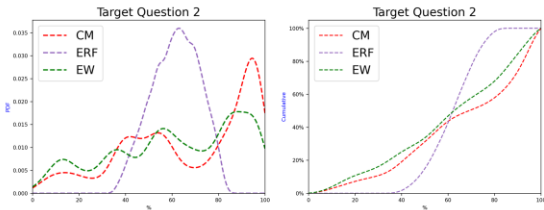
SAV (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Strong Ash Venting (SAV) eruptive scenario in the next 10 years?



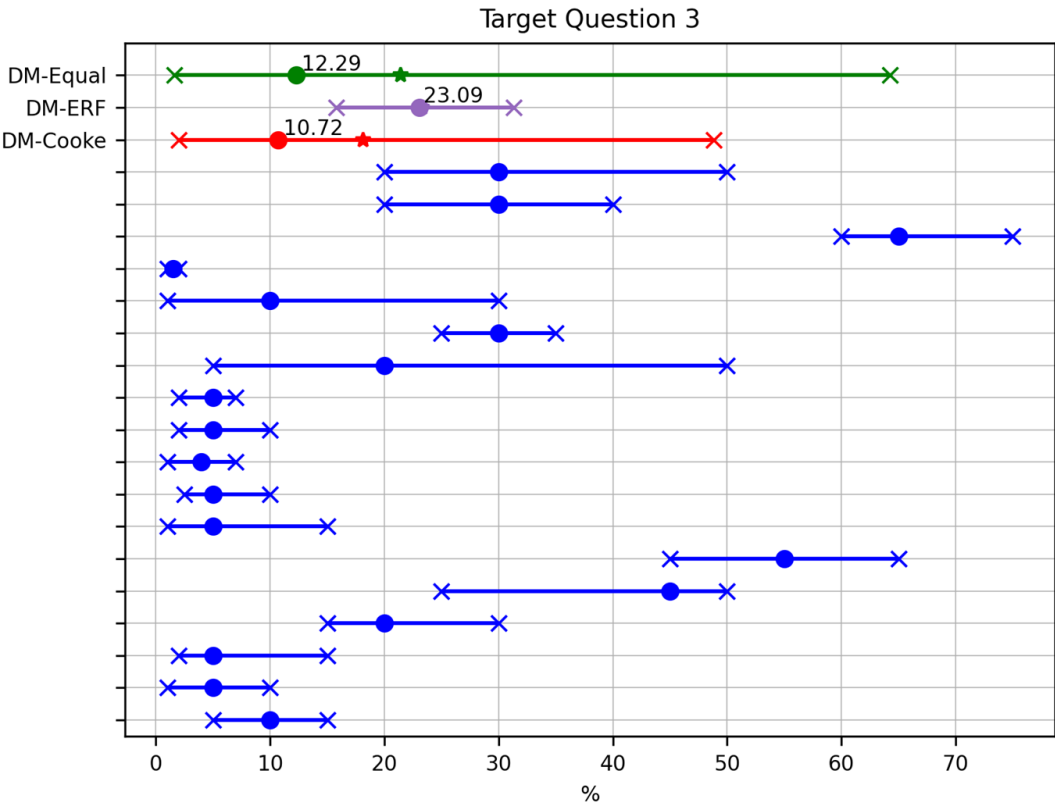
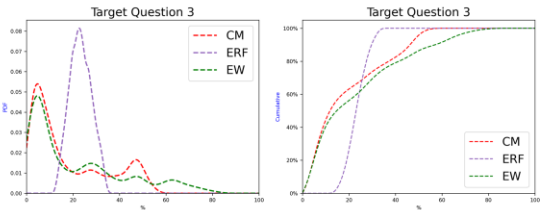
VS (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Violent Strombolian (VS) eruptive scenario in the next 10 years?



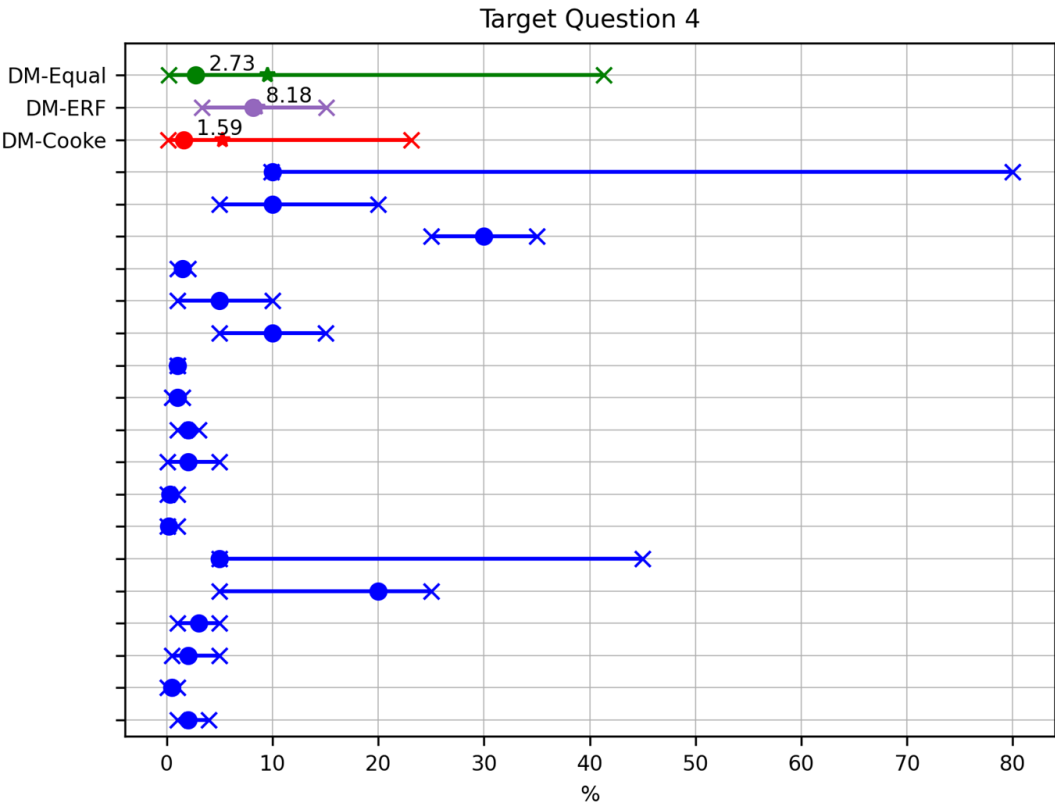
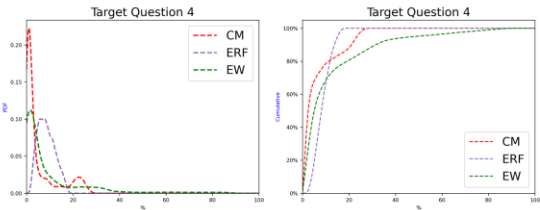
SPL (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one SubPlinian (SPL) eruptive scenario in the next 10 years?



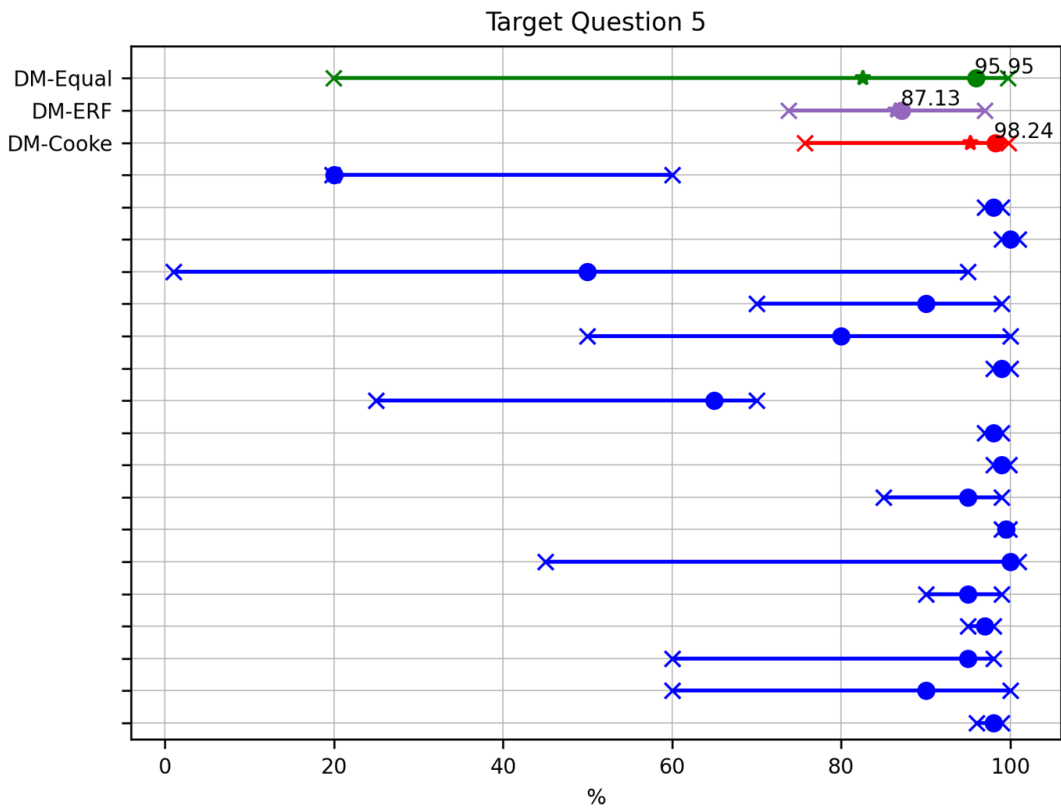
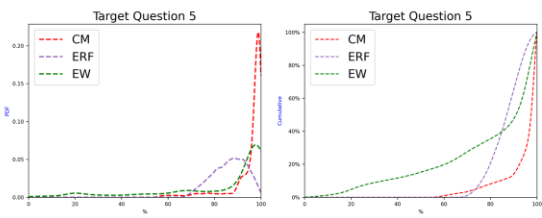
PL (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Plinian (PL) eruptive scenario in the next 10 years?



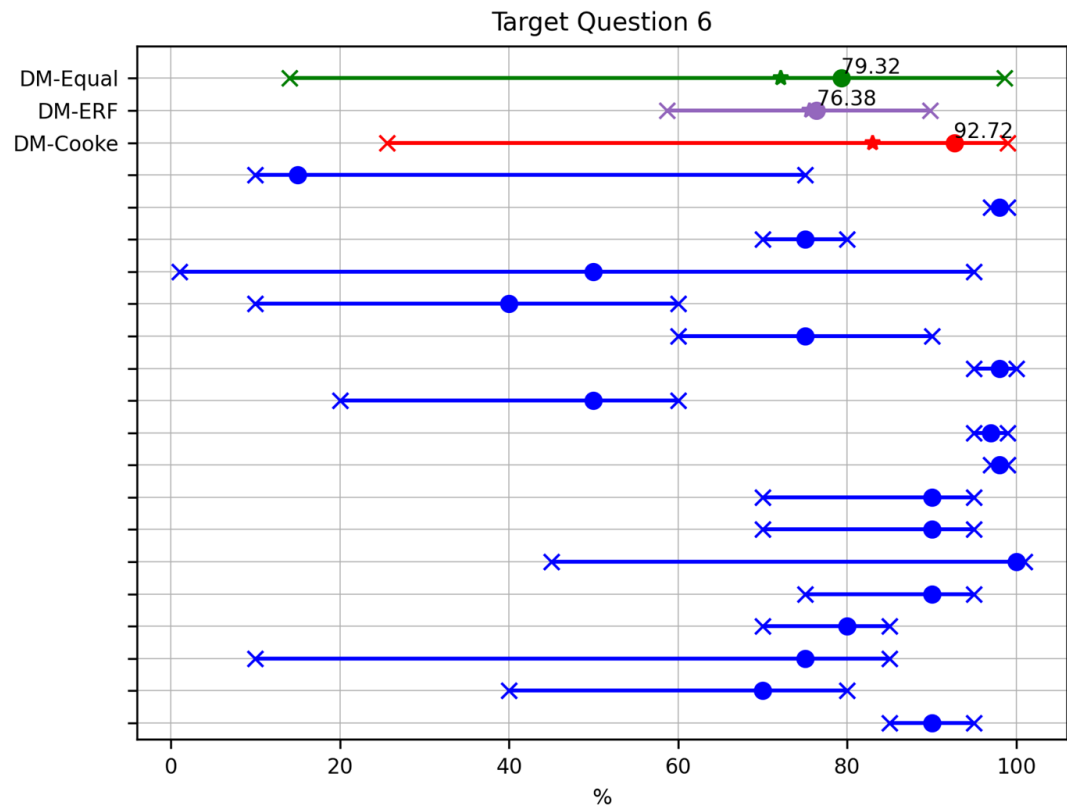
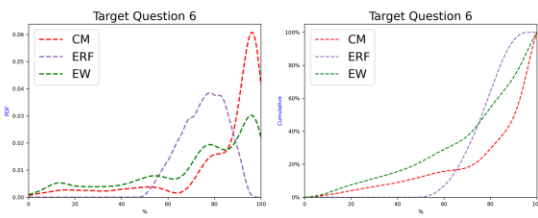
SAV (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Strong Ash Venting (SAV) eruptive scenario in the next 100 years?



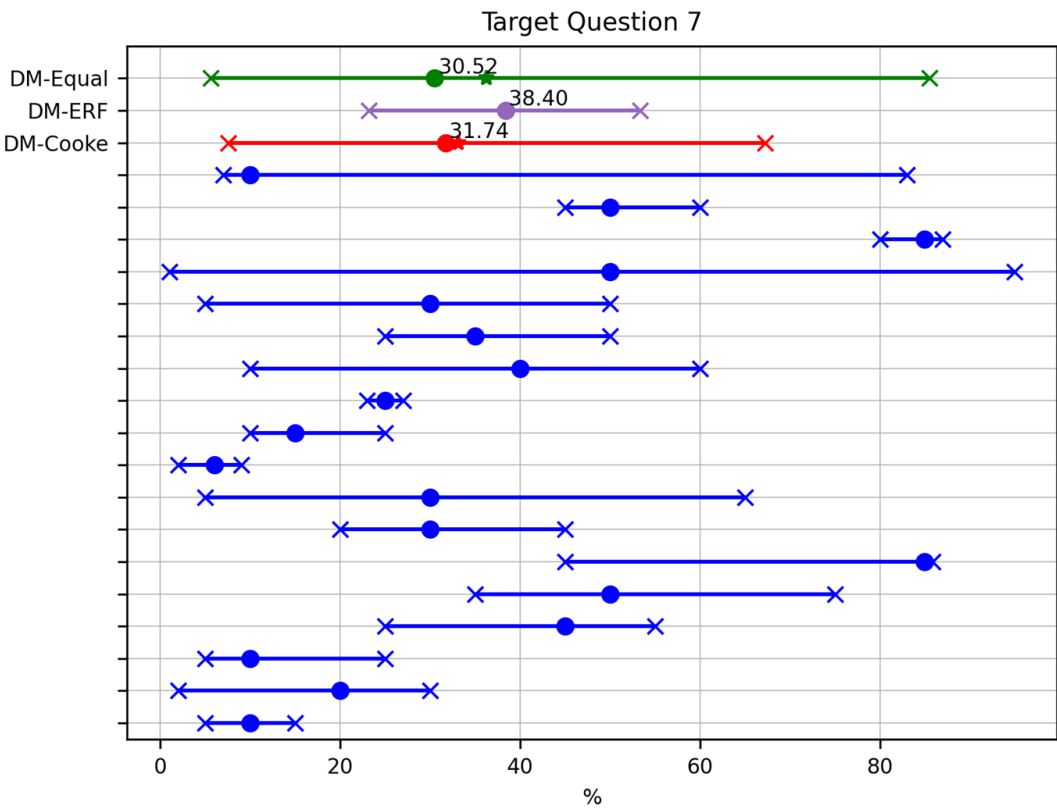
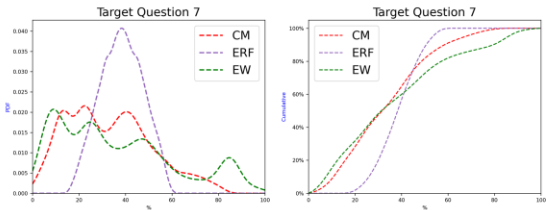
VS (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Violent Strombolian (VS) eruptive scenario in the next 100 years?



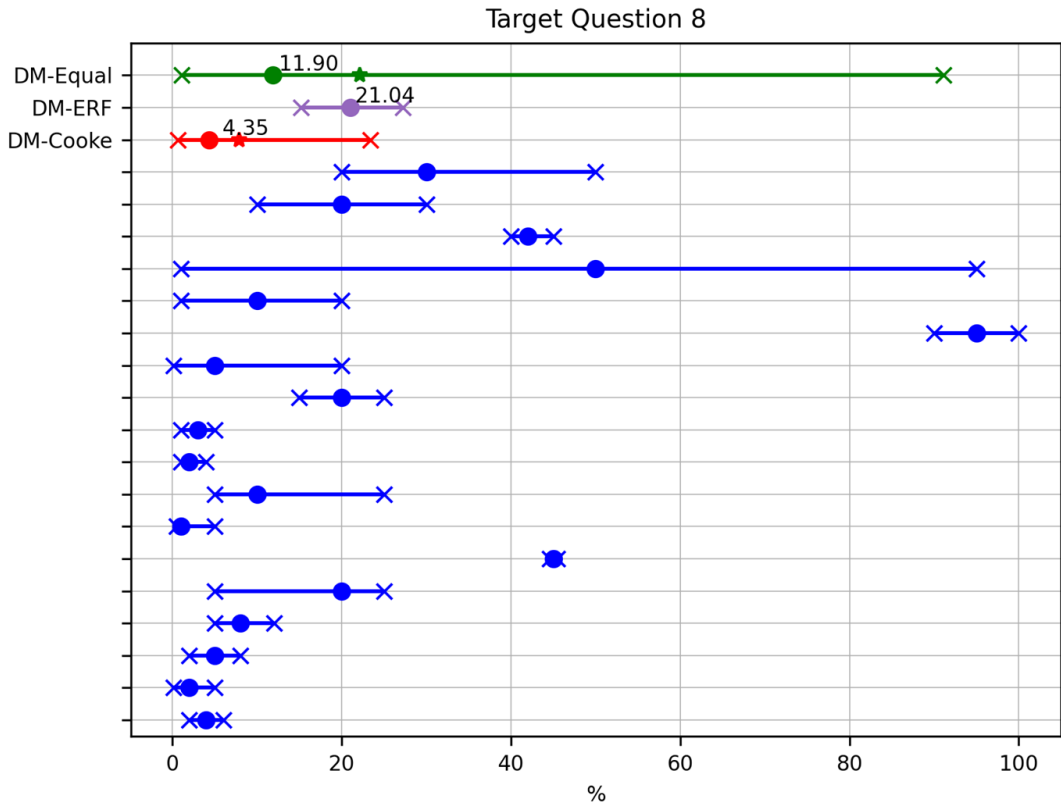
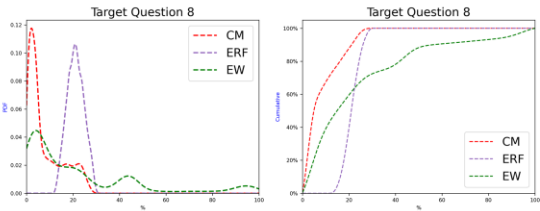
SPL (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one SubPlinian (SPL) eruptive scenario in the next 100 years?



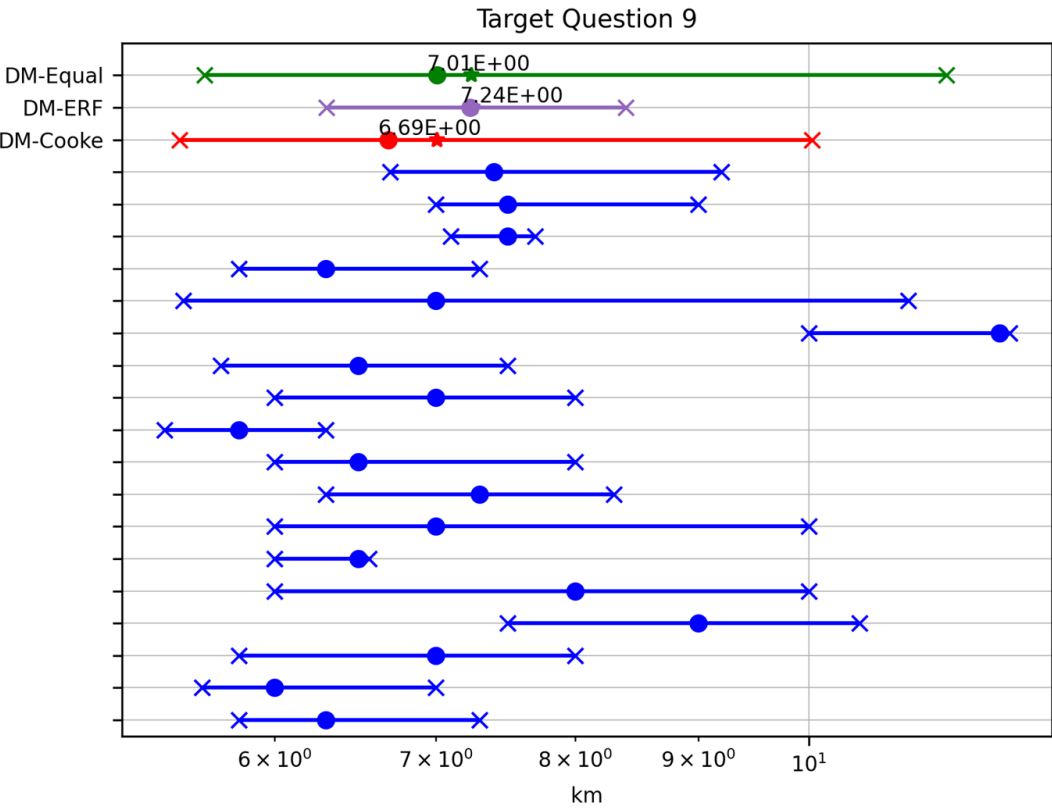
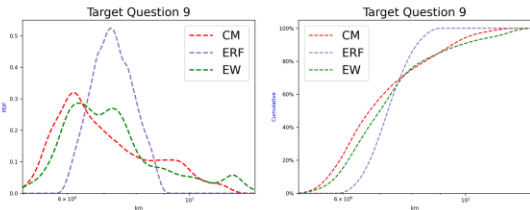
PL (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Plinian (PL) eruptive scenario in the next 100 years?



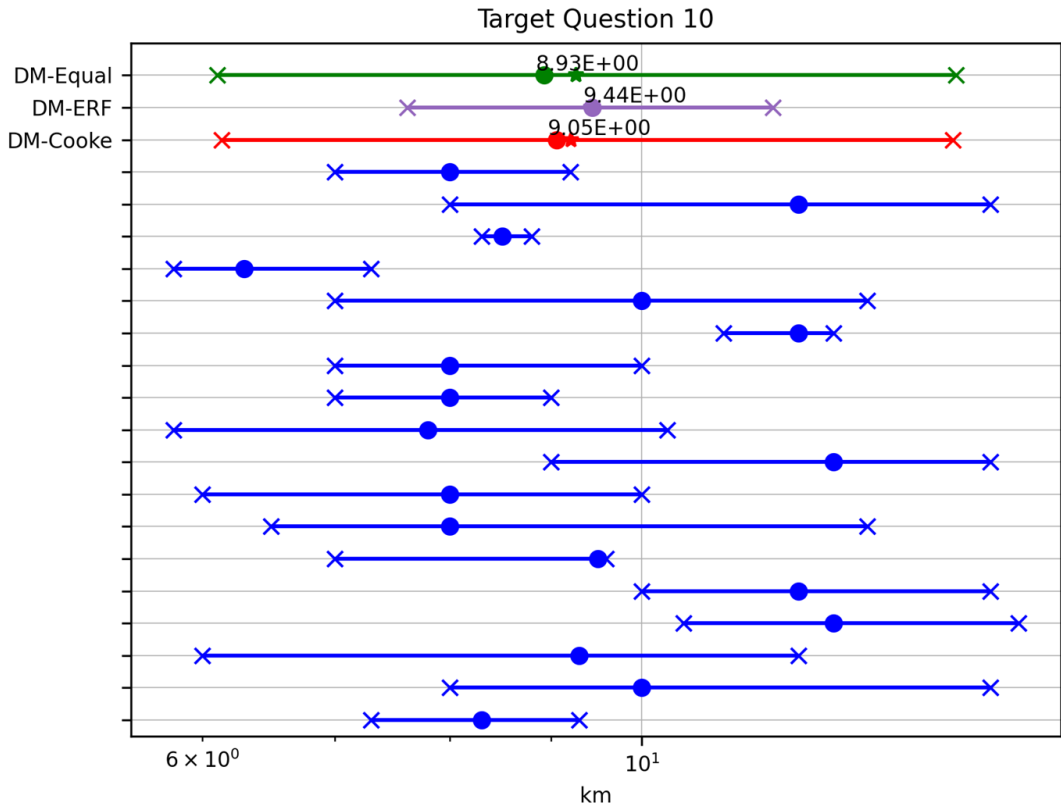
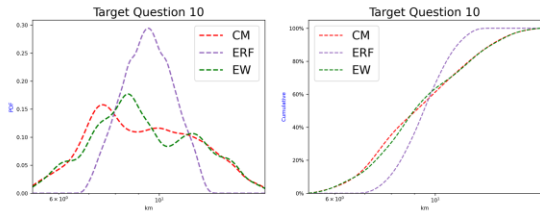
ColHei (SAV)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Strong Ash Venting (SAV) scenario?



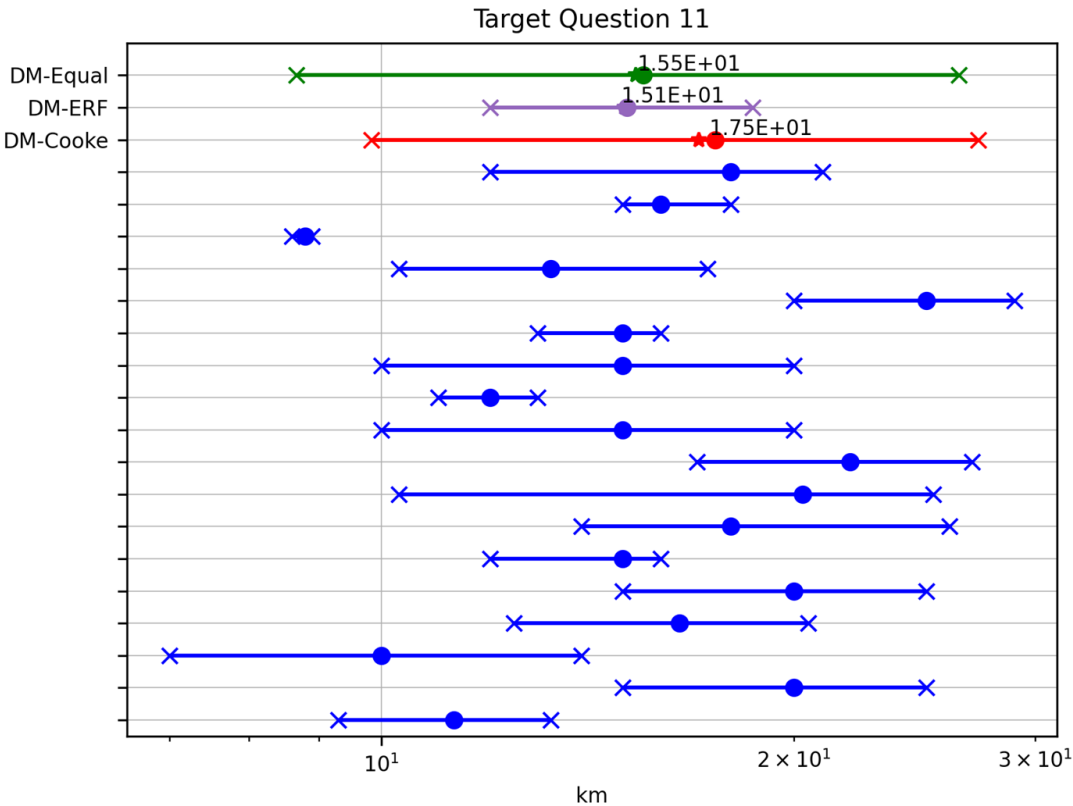
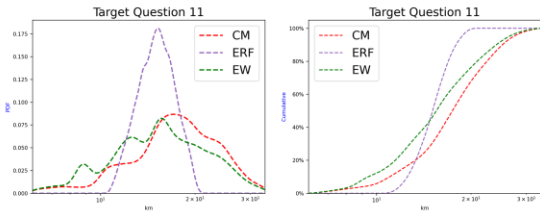
ColHei (VS)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Violent Strombolian (VS) scenario?



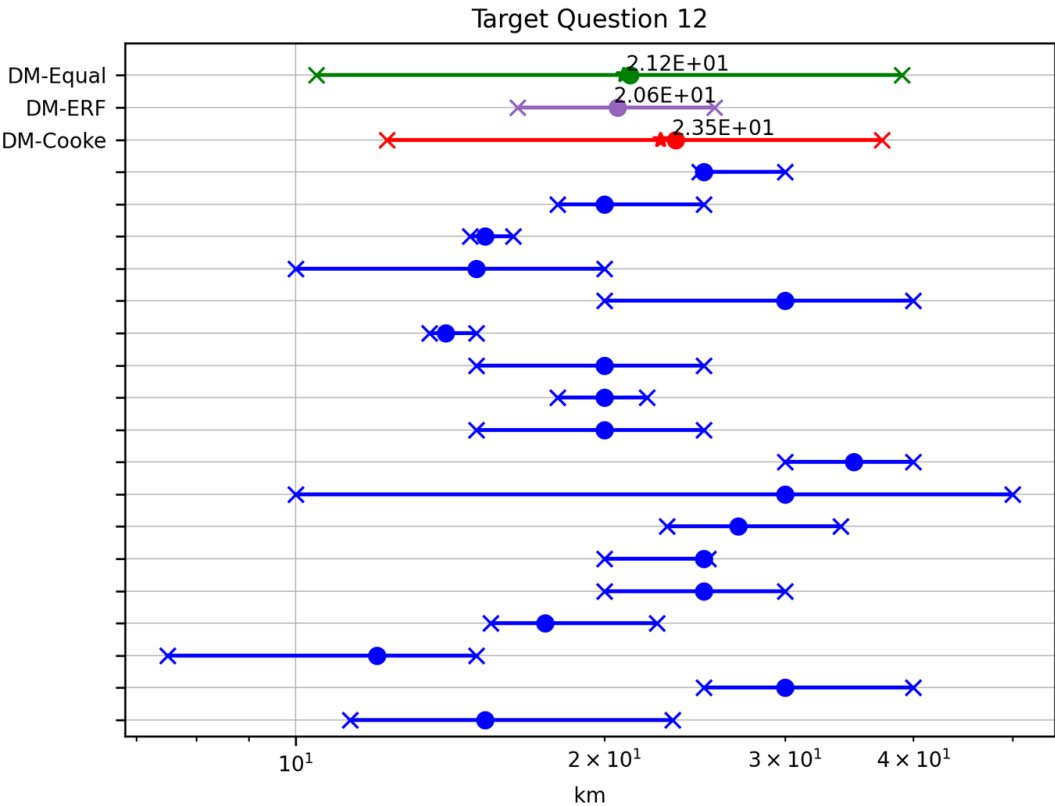
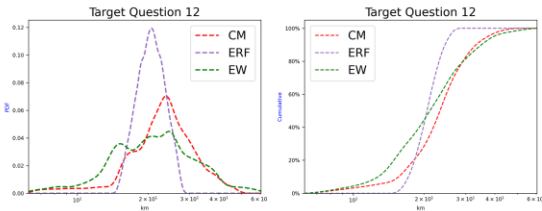
ColHei (SPL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the SubPlinian (SPL) scenario?



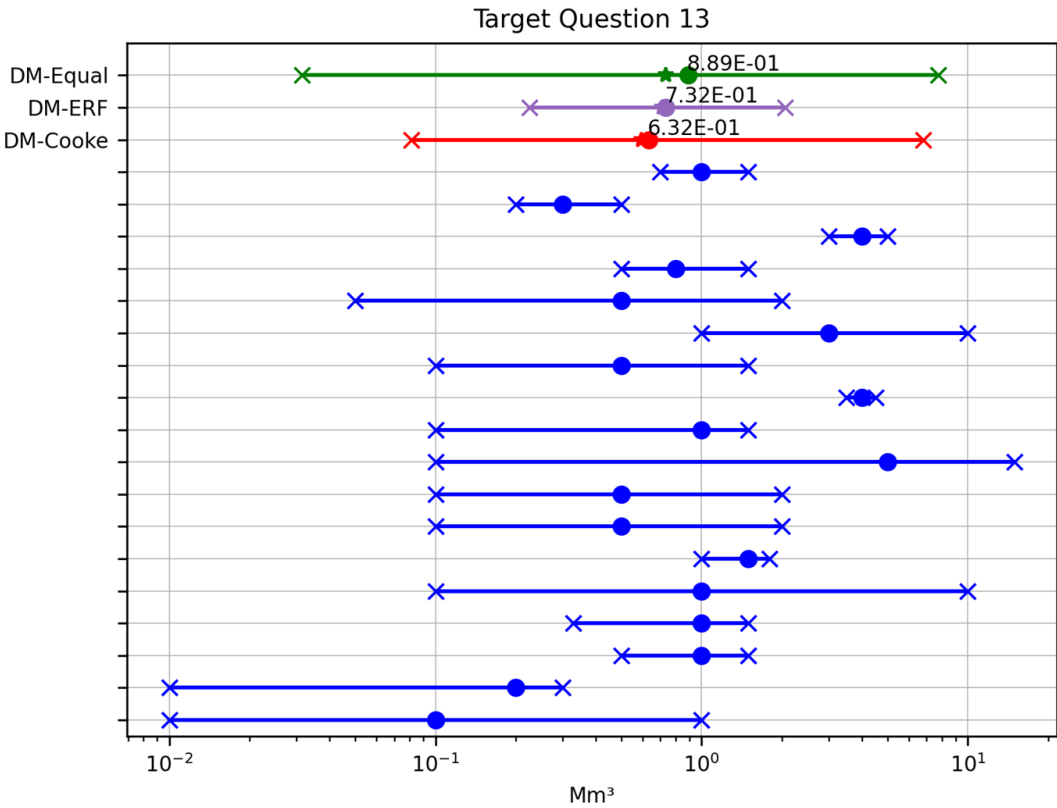
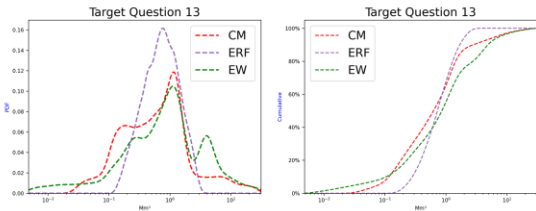
ColHei (PL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Plinian (PL) scenario?



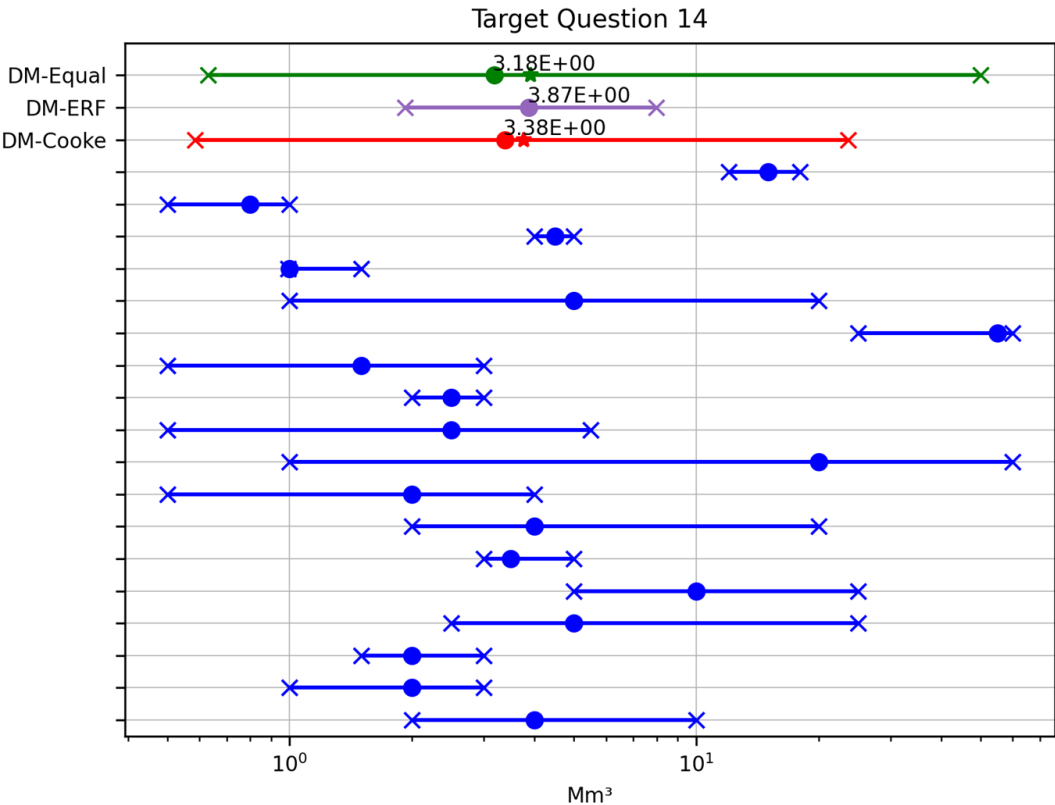
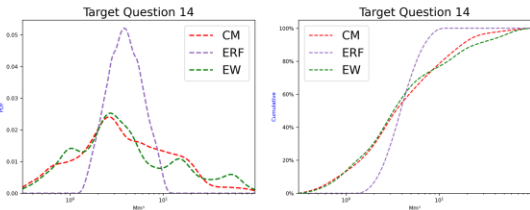
TotVol (SAV)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Strong Ash Venting (SAV) eruptive scenario?



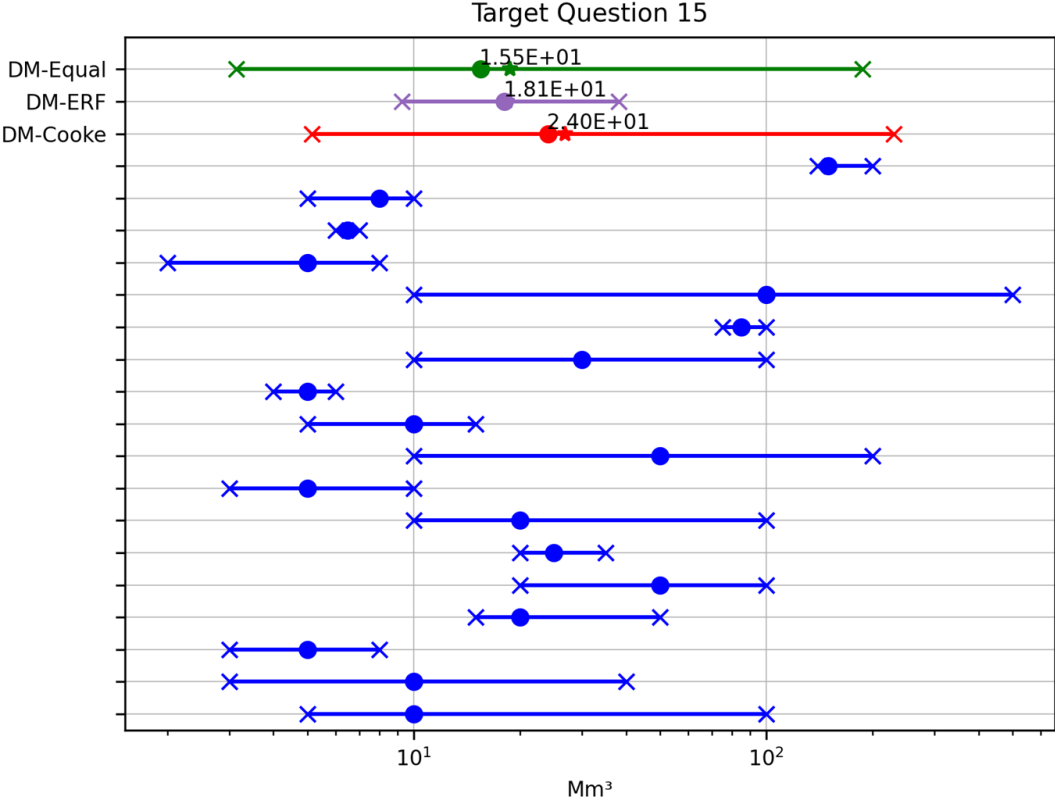
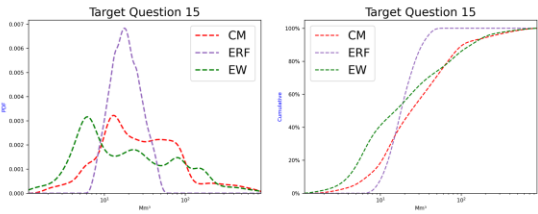
TotVol (VS)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Violent Strombolian (VS) eruptive scenario?



TotVol (SPL)

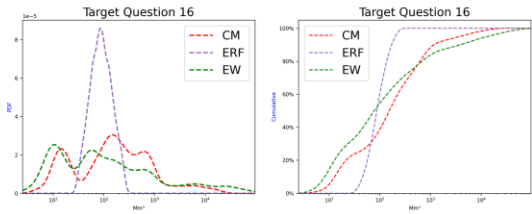
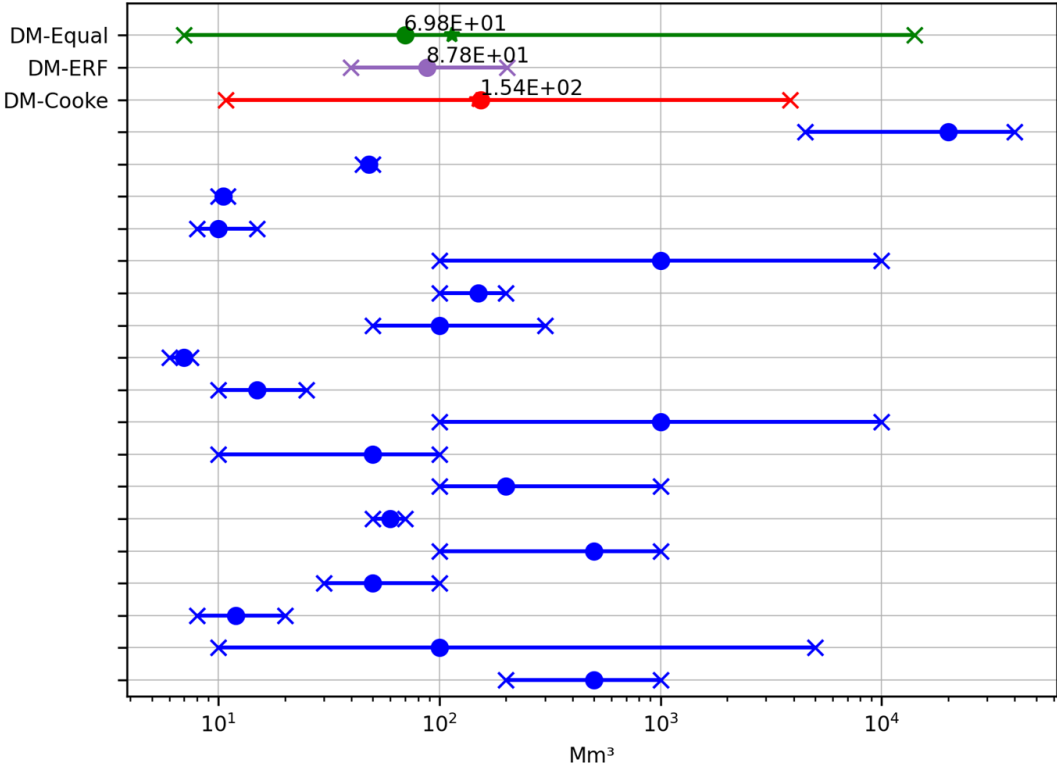
Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the SubPlinian (SPL) eruptive scenario?



TotVol (PL)

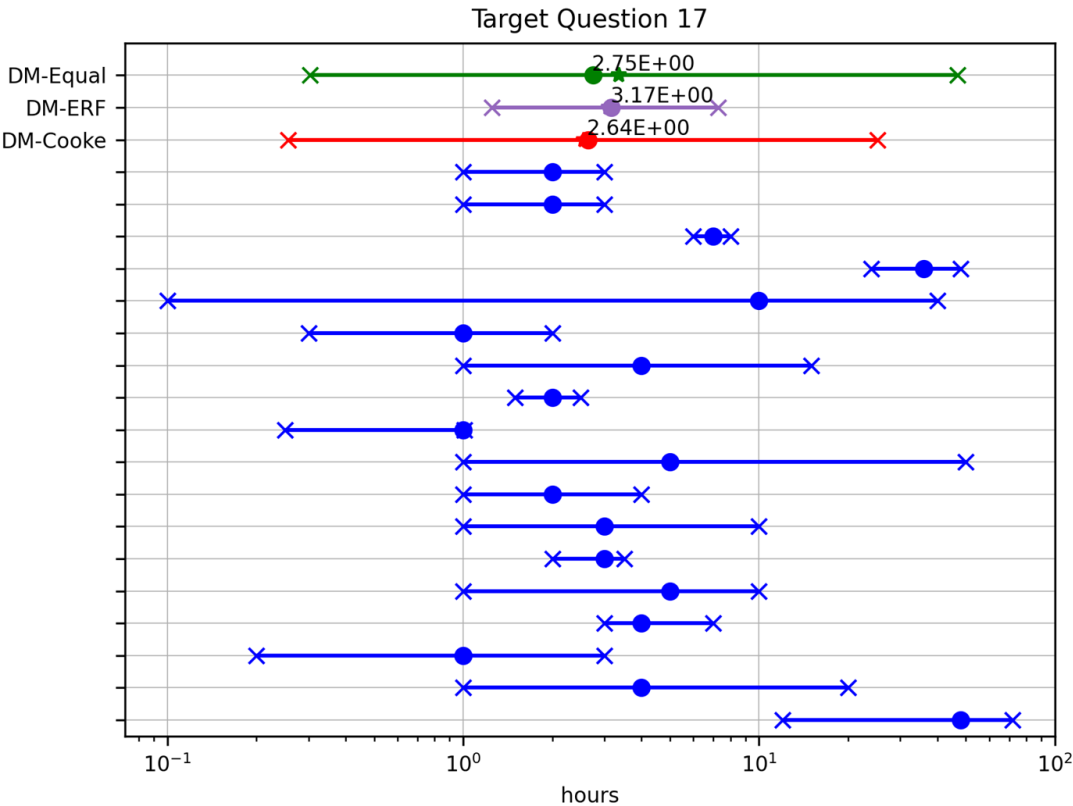
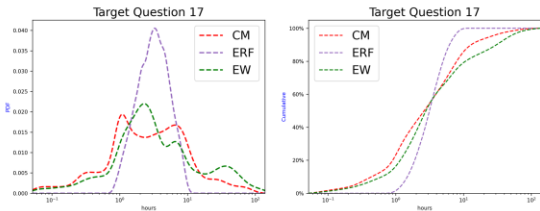
Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Plinian (PL) eruptive scenario?

Target Question 16



Dur (SAV)

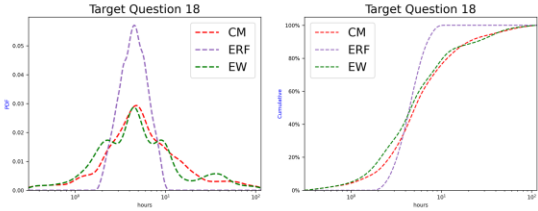
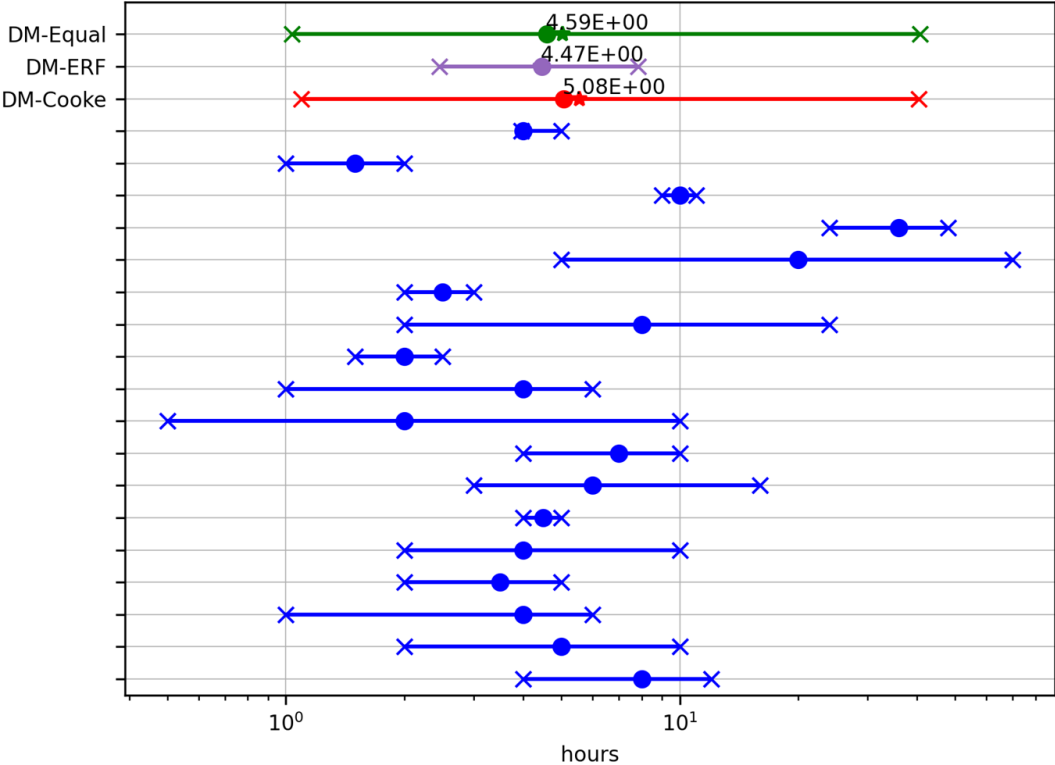
Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Strong Ash Venting (SAV) eruptive scenario?



Dur (VS)

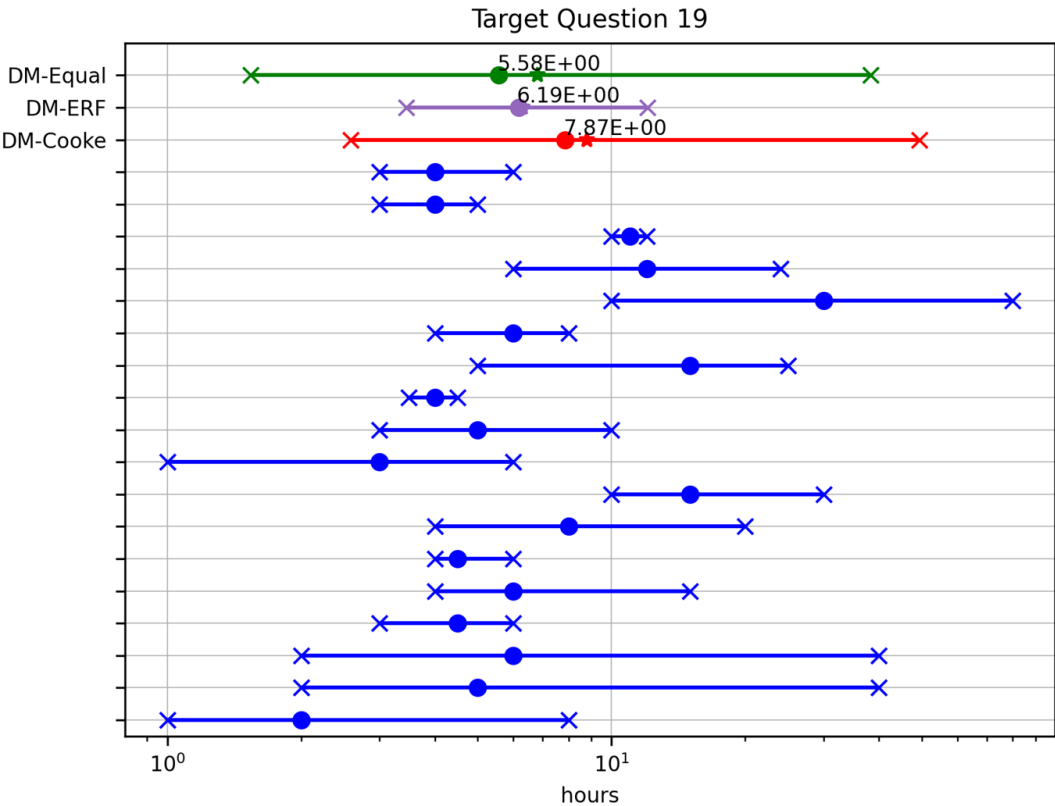
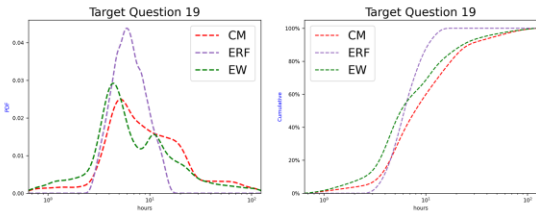
Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Violent Strombolian (VS) eruptive scenario?

Target Question 18



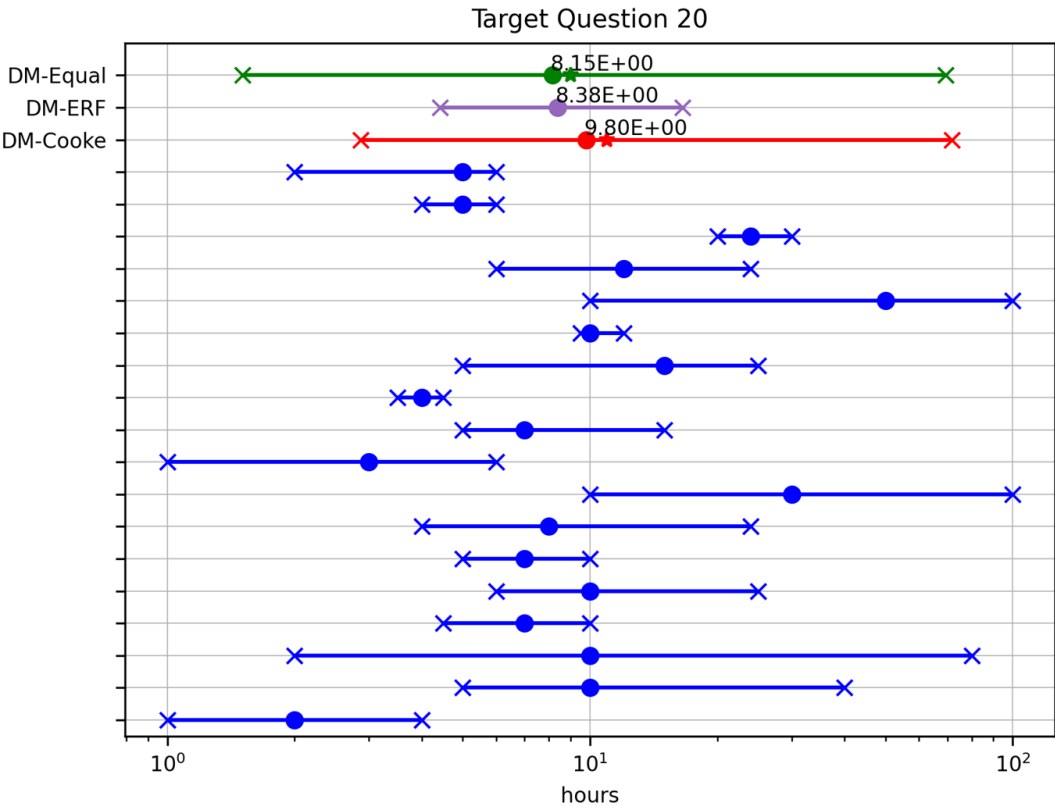
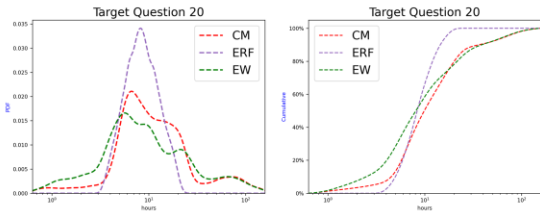
Dur (SPL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the SubPlinian (SPL) eruptive scenario?



Dur (PL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Plinian (PL) eruptive scenario?



Target Percentiles

Percentiles of target questions

	Q05 (EW)	Q50 (EW)	Q95 (EW)	Qmean (EW)	Q05 (Cooke)	Q50 (Cooke)	Q95 (Cooke)	Qmean (Cooke)	Q05 (ERF)	Q50 (ERF)	Q95 (ERF)	Qmean (ERF)
TQ 1	13.55	90.74	99.59	78.21	61.22	96.45	99.51	91.40	67.47	80.02	95.02	80.45
TQ 2	11.75	63.49	96.98	61.54	14.93	73.95	97.59	67.19	44.03	62.14	77.56	61.61
TQ 3	1.60	12.29	64.27	21.41	2.01	10.72	48.81	18.16	15.76	23.09	31.33	23.28
TQ 4	0.20	2.73	41.31	9.56	0.14	1.59	23.12	5.25	3.33	8.18	15.09	8.56
TQ 5	19.98	95.95	99.69	82.54	75.70	98.24	99.80	95.25	73.75	87.13	97.01	86.44
TQ 6	14.05	79.32	98.60	72.14	25.57	92.72	98.97	82.98	58.69	76.38	89.80	75.53
TQ 7	5.60	30.52	85.51	36.25	7.56	31.74	67.26	33.10	23.19	38.40	53.36	38.35
TQ 8	1.05	11.90	91.09	22.15	0.65	4.35	23.39	7.88	15.22	21.04	27.24	21.11
TQ 9	5.61E+00	7.01E+00	1.14E+01	7.24E+00	5.48E+00	6.69E+00	1.00E+01	7.01E+00	6.31E+00	7.24E+00	8.39E+00	7.25E+00
TQ 10	6.11E+00	8.93E+00	1.44E+01	9.26E+00	6.14E+00	9.05E+00	1.44E+01	9.21E+00	7.61E+00	9.44E+00	1.16E+01	9.43E+00
TQ 11	8.67E+00	1.55E+01	2.64E+01	1.53E+01	9.83E+00	1.75E+01	2.73E+01	1.71E+01	1.20E+01	1.51E+01	1.87E+01	1.50E+01
TQ 12	1.05E+01	2.12E+01	3.90E+01	2.09E+01	1.23E+01	2.35E+01	3.73E+01	2.27E+01	1.65E+01	2.06E+01	2.56E+01	2.06E+01
TQ 13	3.16E-02	8.89E-01	7.74E+00	7.32E-01	8.14E-02	6.32E-01	6.79E+00	5.95E-01	2.26E-01	7.32E-01	2.05E+00	7.09E-01
TQ 14	6.31E-01	3.18E+00	5.00E+01	3.92E+00	5.85E-01	3.38E+00	2.36E+01	3.77E+00	1.92E+00	3.87E+00	7.97E+00	3.89E+00
TQ 15	3.14E+00	1.55E+01	1.88E+02	1.88E+01	5.13E+00	2.40E+01	2.30E+02	2.69E+01	9.25E+00	1.81E+01	3.82E+01	1.84E+01
TQ 16	6.98E+00	6.98E+01	1.41E+04	1.14E+02	1.08E+01	1.54E+02	3.86E+03	1.48E+02	3.97E+01	8.78E+01	2.02E+02	8.85E+01
TQ 17	3.04E-01	2.75E+00	4.67E+01	3.35E+00	2.56E-01	2.64E+00	2.52E+01	2.56E+00	1.25E+00	3.17E+00	7.26E+00	3.10E+00
TQ 18	1.04E+00	4.59E+00	4.07E+01	5.03E+00	1.10E+00	5.08E+00	4.05E+01	5.55E+00	2.46E+00	4.47E+00	7.83E+00	4.43E+00

Percentiles of target questions

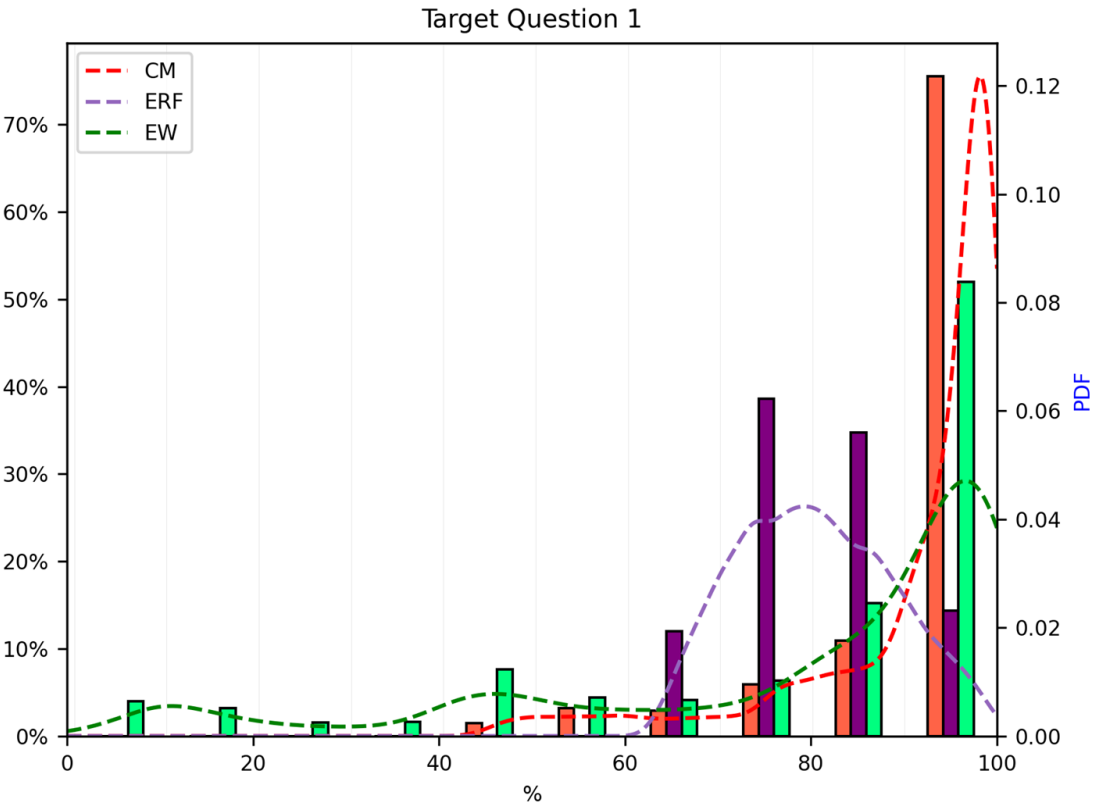
	Q05 (EW)	Q50 (EW)	Q95 (EW)	Qmean (EW)	Q05 (Cooke)	Q50 (Cooke)	Q95 (Cooke)	Qmean (Cooke)	Q05 (ERF)	Q50 (ERF)	Q95 (ERF)	Qmean (ERF)
TQ 19	1.54E+00	5.58E+00	3.83E+01	6.82E+00	2.58E+00	7.87E+00	4.94E+01	8.81E+00	3.46E+00	6.19E+00	1.21E+01	6.29E+00
TQ 20	1.51E+00	8.15E+00	6.93E+01	9.00E+00	2.87E+00	9.80E+00	7.19E+01	1.09E+01	4.42E+00	8.38E+00	1.65E+01	8.44E+00

Target Barplots

SAV (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Strong Ash Venting (SAV) eruptive scenario in the next 10 years?

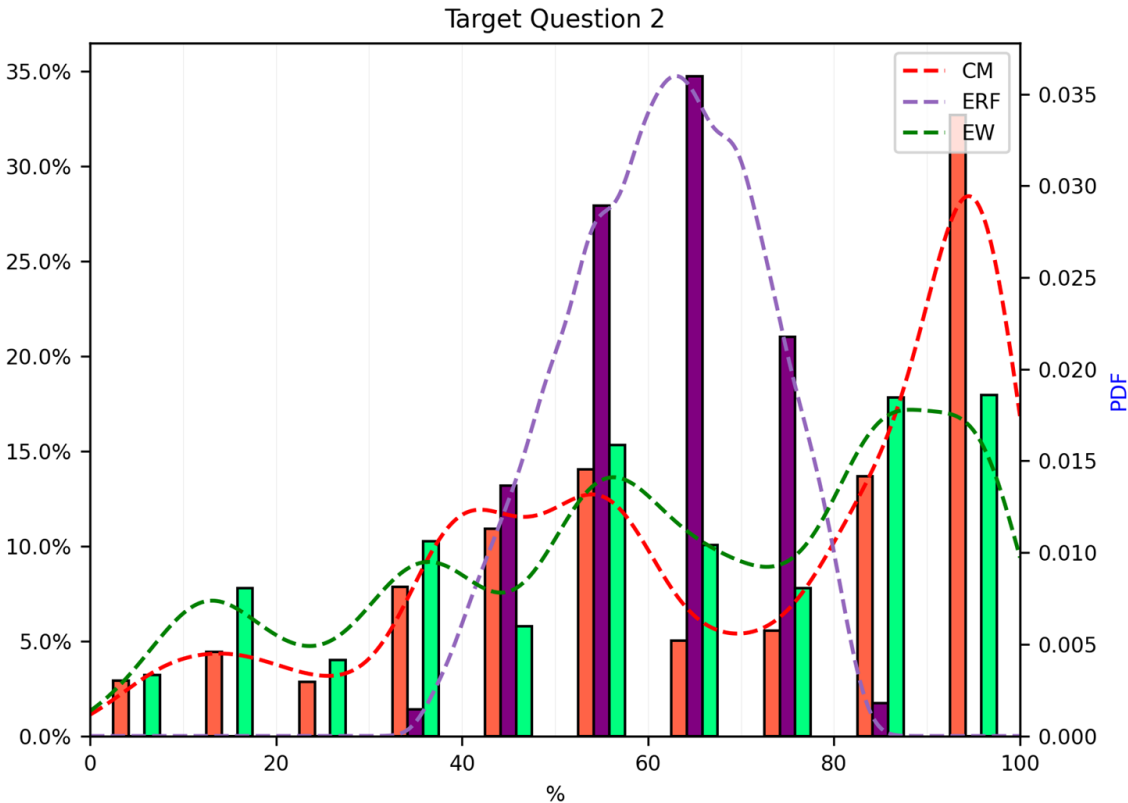
	Q05	Q50	Q95	Qmean
Cooke	6.12E+01	9.64E+01	9.95E+01	9.14E+01
ERF	6.75E+01	8.00E+01	9.50E+01	8.05E+01
EW	1.35E+01	9.07E+01	9.96E+01	7.82E+01



VS (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Violent Strombolian (VS) eruptive scenario in the next 10 years?

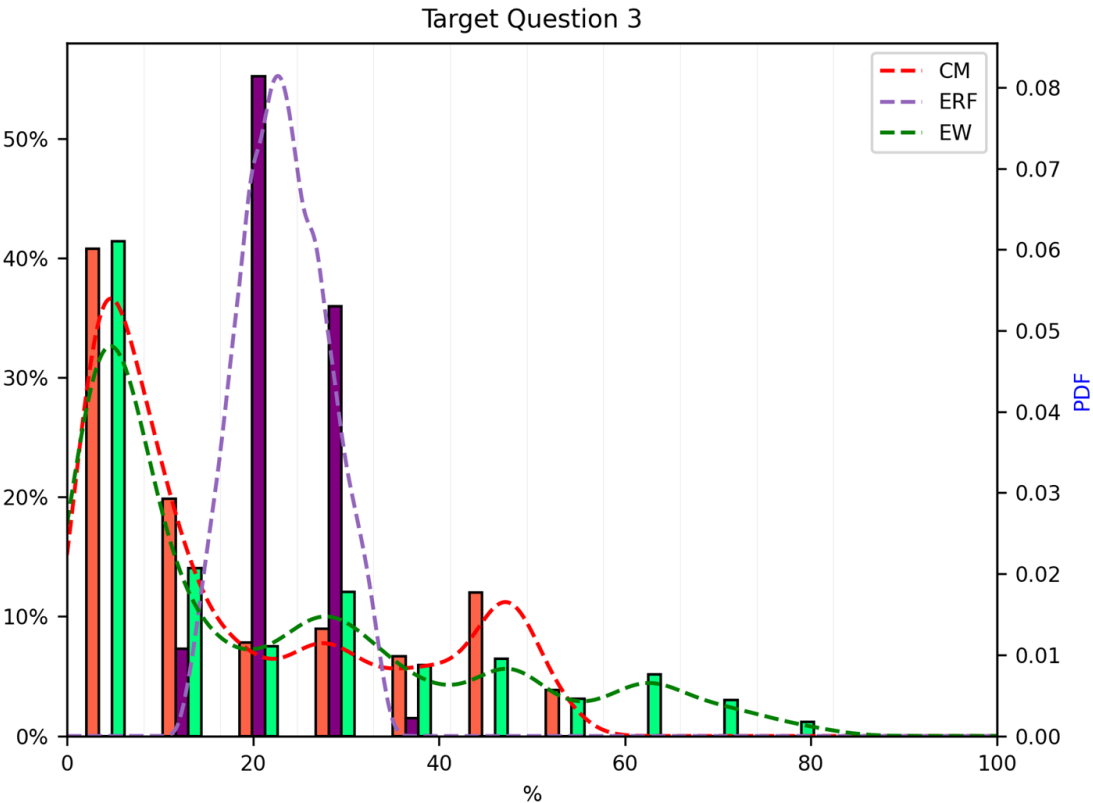
	Q05	Q50	Q95	Qmean
Cooke	1.49E+01	7.40E+01	9.76E+01	6.72E+01
ERF	4.40E+01	6.21E+01	7.76E+01	6.16E+01
EW	1.17E+01	6.35E+01	9.70E+01	6.15E+01



SPL (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one SubPlinian (SPL) eruptive scenario in the next 10 years?

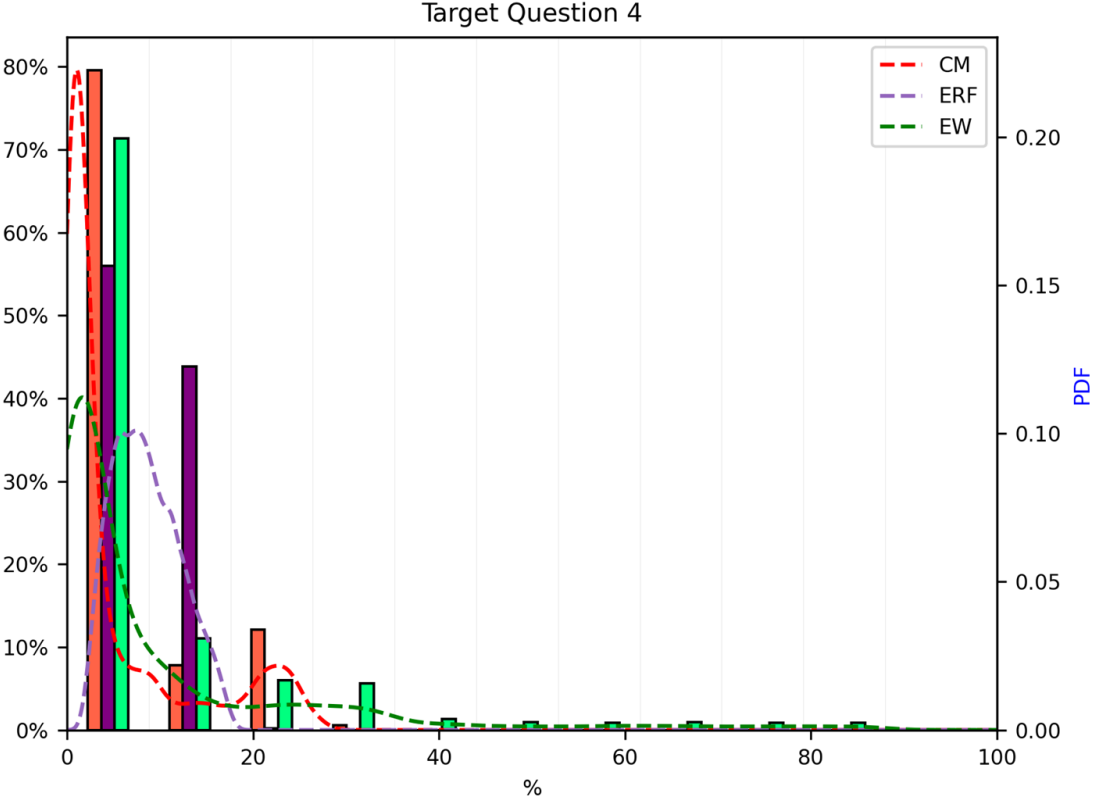
	Q05	Q50	Q95	Qmean
Cooke	2.01E+00	1.07E+01	4.88E+01	1.82E+01
ERF	1.58E+01	2.31E+01	3.13E+01	2.33E+01
EW	1.60E+00	1.23E+01	6.43E+01	2.14E+01



PL (10 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Plinian (PL) eruptive scenario in the next 10 years?

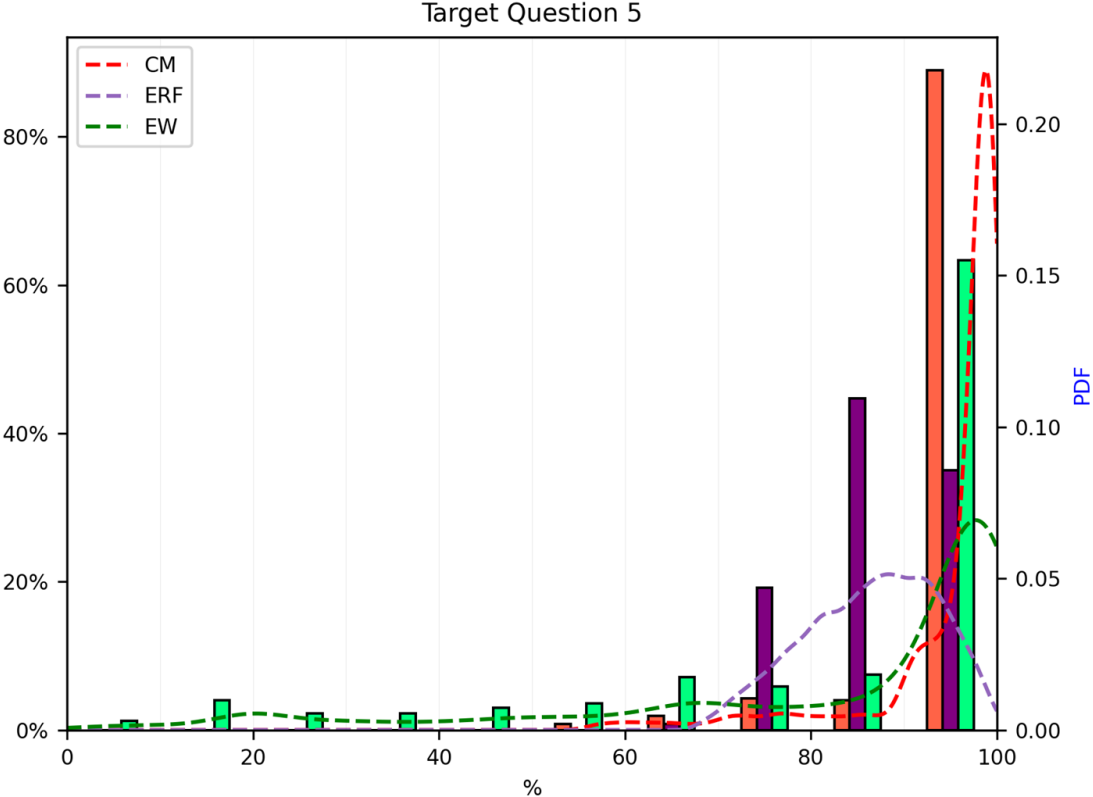
	Q05	Q50	Q95	Qmean
Cooke	1.43E-01	1.59E+00	2.31E+01	5.25E+00
ERF	3.33E+00	8.18E+00	1.51E+01	8.56E+00
EW	1.98E-01	2.73E+00	4.13E+01	9.56E+00



SAV (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Strong Ash Venting (SAV) eruptive scenario in the next 100 years?

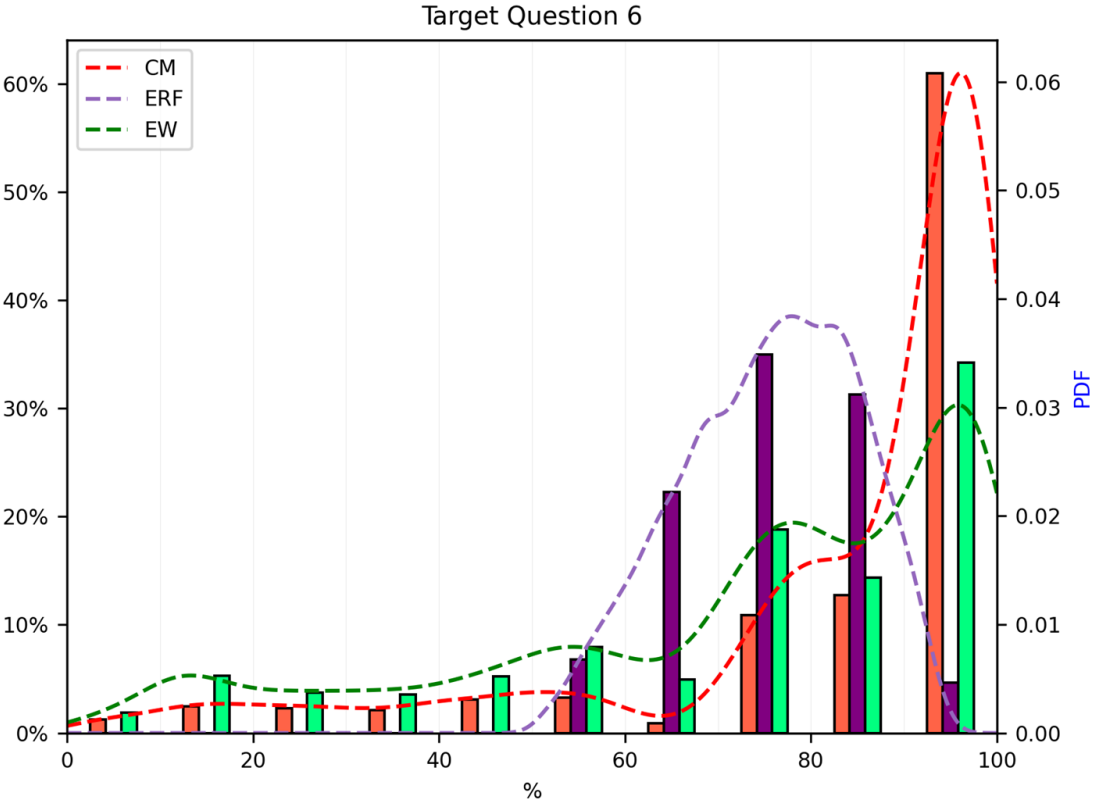
	Q05	Q50	Q95	Qmean
Cooke	7.57E+01	9.82E+01	9.98E+01	9.53E+01
ERF	7.38E+01	8.71E+01	9.70E+01	8.64E+01
EW	2.00E+01	9.60E+01	9.97E+01	8.25E+01



VS (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Violent Strombolian (VS) eruptive scenario in the next 100 years?

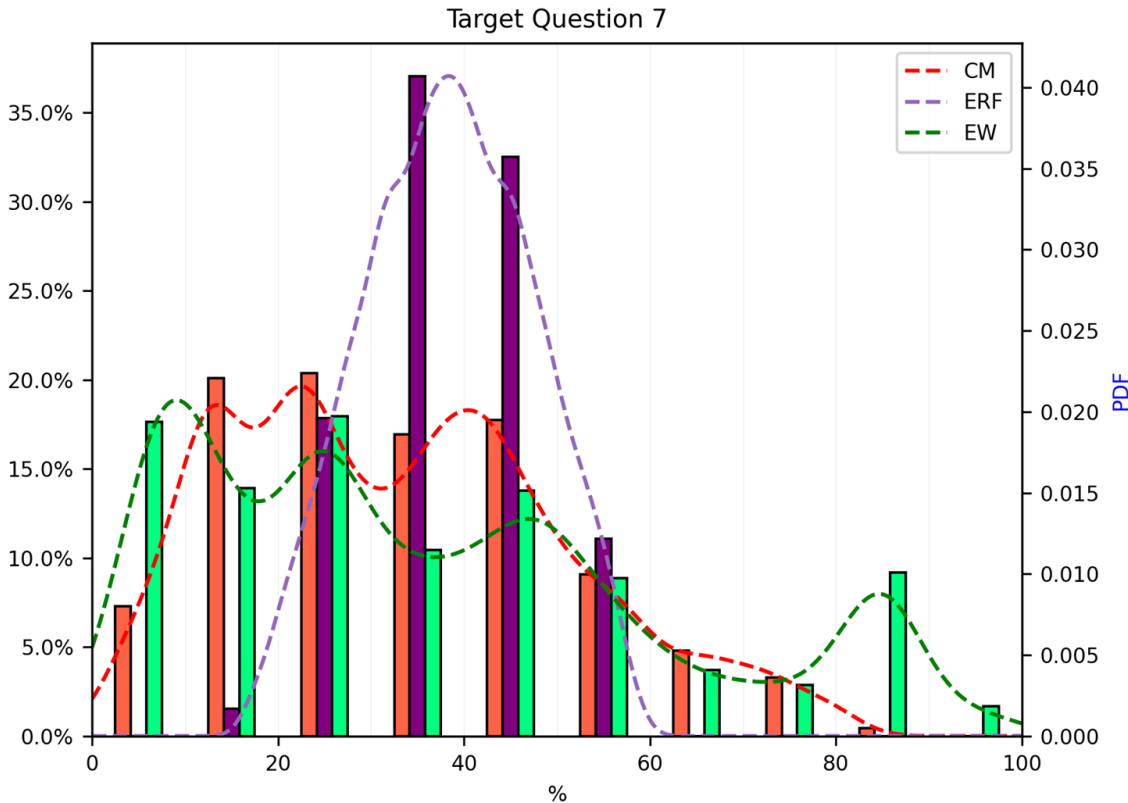
	Q05	Q50	Q95	Qmean
Cooke	2.56E+01	9.27E+01	9.90E+01	8.30E+01
ERF	5.87E+01	7.64E+01	8.98E+01	7.55E+01
EW	1.41E+01	7.93E+01	9.86E+01	7.21E+01



SPL (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one SubPlinian (SPL) eruptive scenario in the next 100 years?

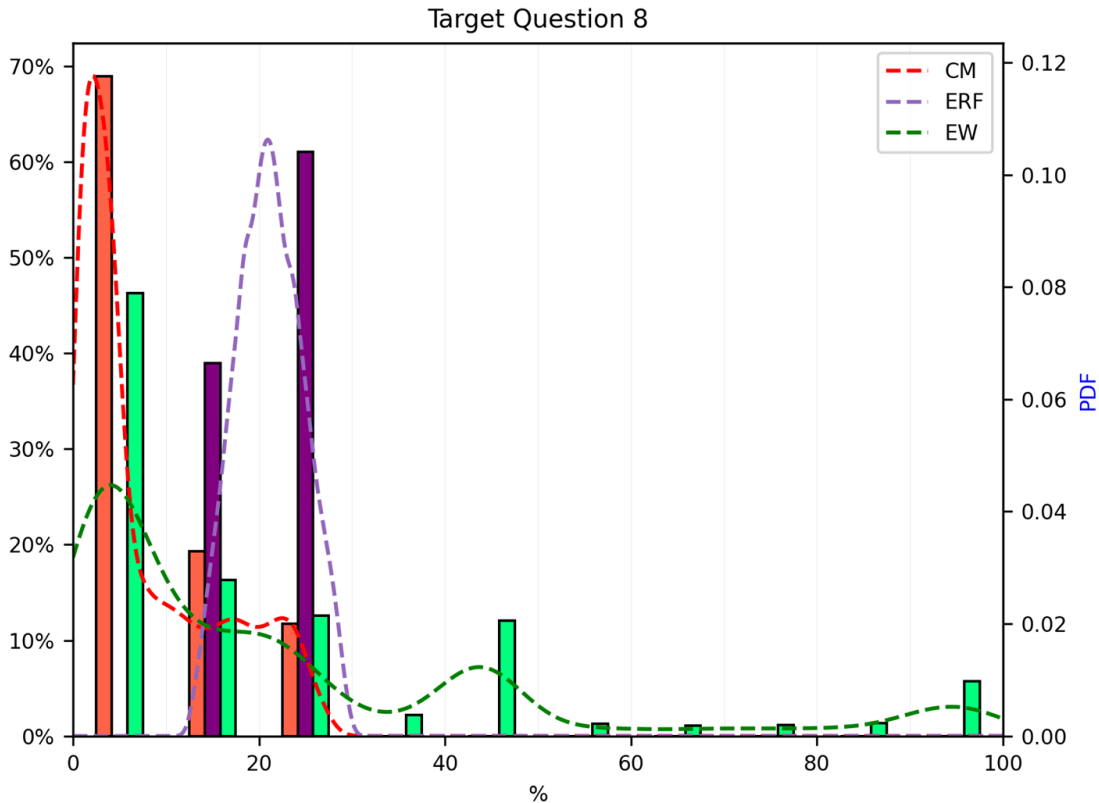
	Q05	Q50	Q95	Qmean
Cooke	7.56E+00	3.17E+01	6.73E+01	3.31E+01
ERF	2.32E+01	3.84E+01	5.34E+01	3.84E+01
EW	5.60E+00	3.05E+01	8.55E+01	3.62E+01



PL (100 yrs)

Given recent activity and your knowledge of the eruptive history of Sangay volcano, what is the probability that Sangay will experience one Plinian (PL) eruptive scenario in the next 100 years?

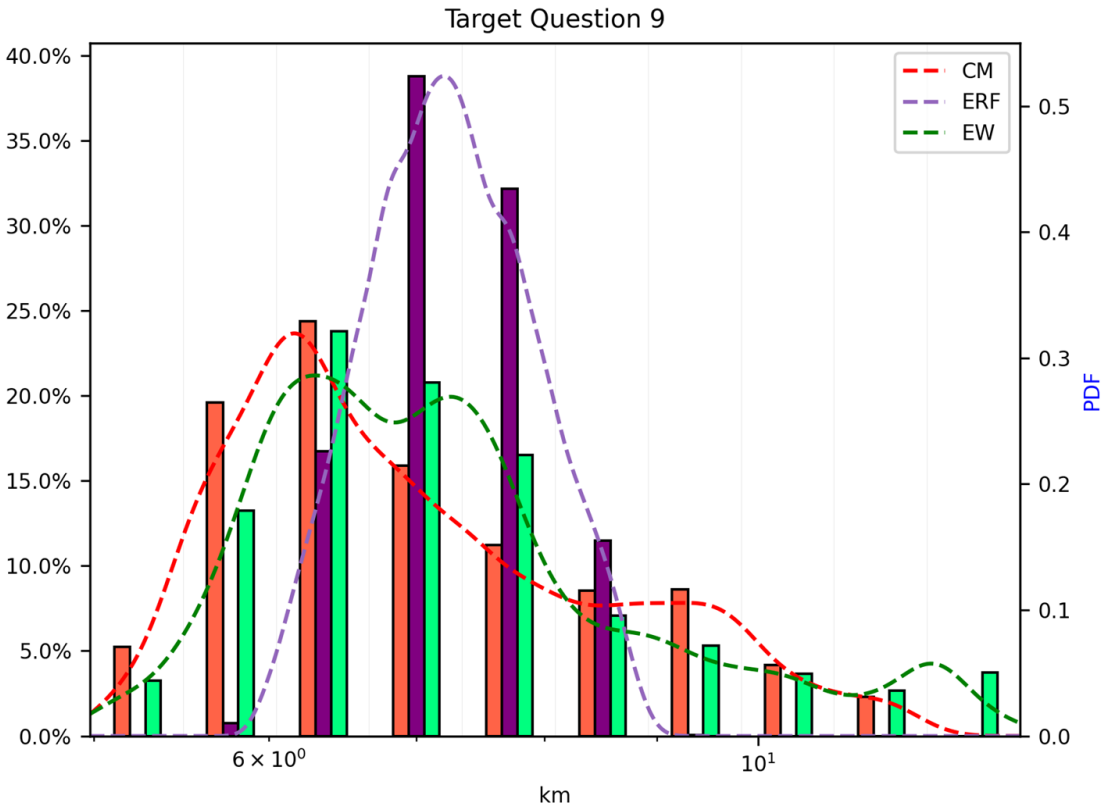
	Q05	Q50	Q95	Qmean
Cooke	6.47E-01	4.35E+00	2.34E+01	7.88E+00
ERF	1.52E+01	2.10E+01	2.72E+01	2.11E+01
EW	1.05E+00	1.19E+01	9.11E+01	2.22E+01



ColHei (SAV)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Strong Ash Venting (SAV) scenario?

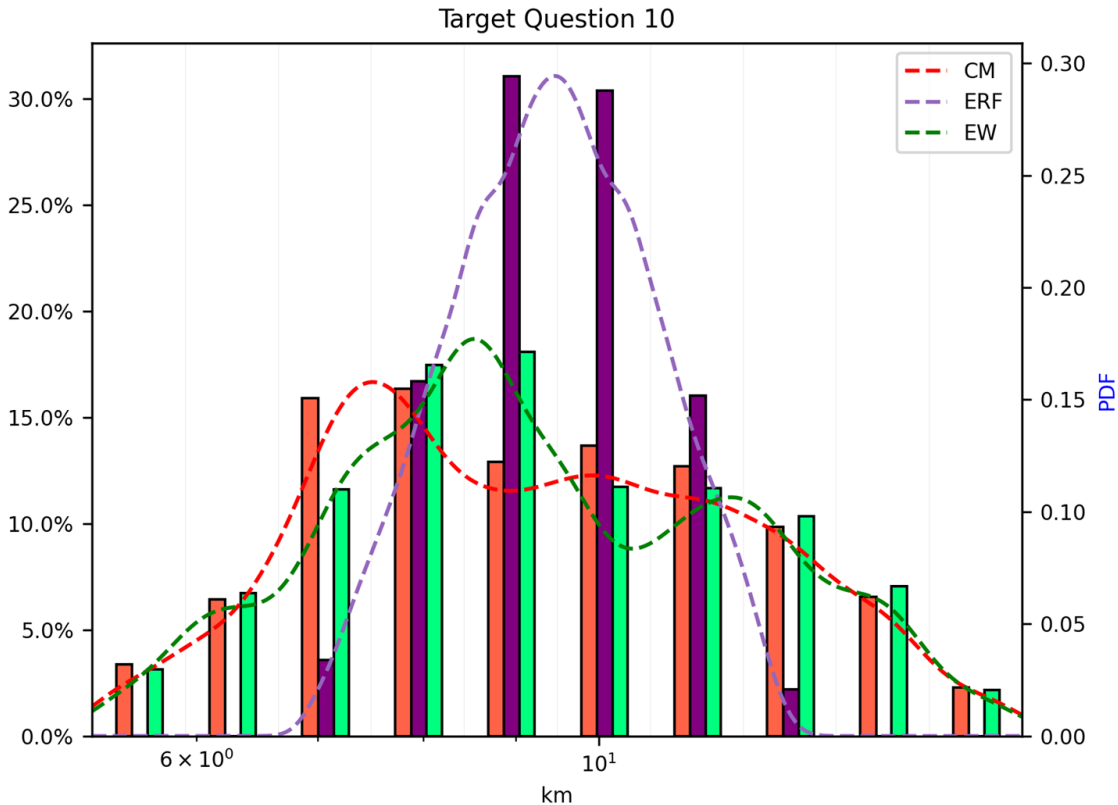
	Q05	Q50	Q95	Qmean
Cooke	5.48E+00	6.69E+00	1.00E+01	7.01E+00
ERF	6.31E+00	7.24E+00	8.39E+00	7.25E+00
EW	5.61E+00	7.01E+00	1.14E+01	7.24E+00



ColHei (VS)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Violent Strombolian (VS) scenario?

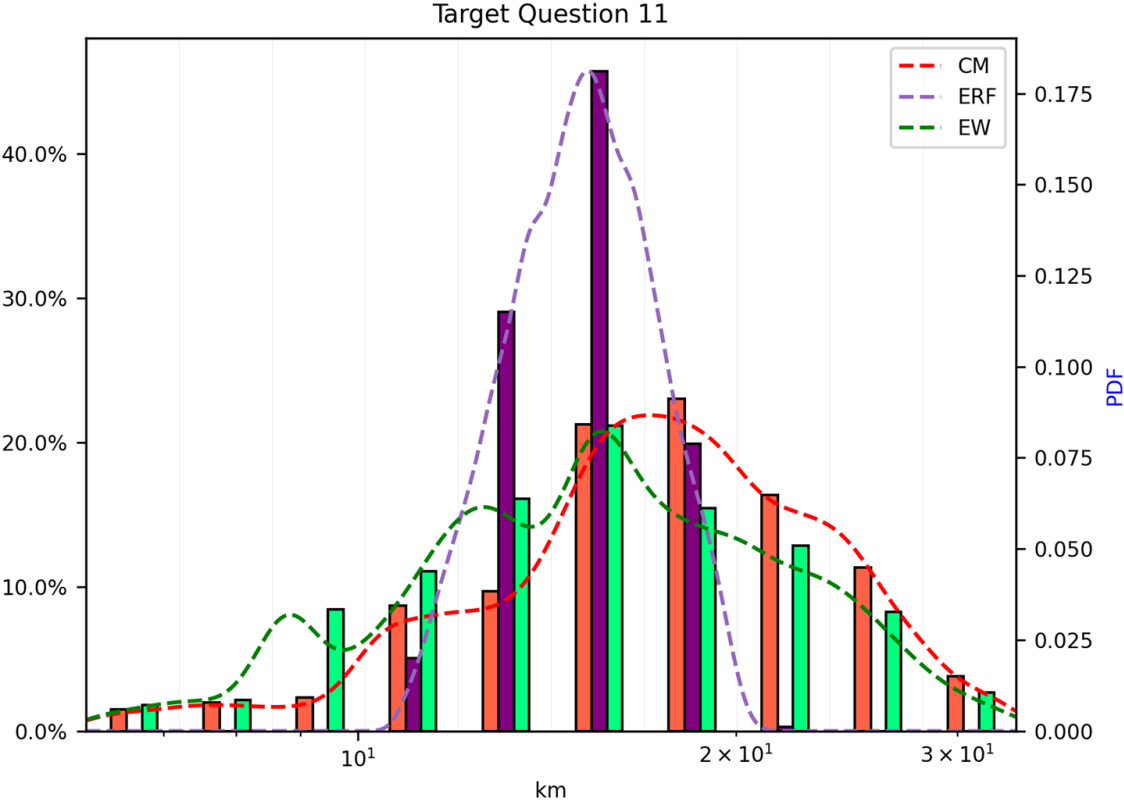
	Q05	Q50	Q95	Qmean
Cooke	6.14E+00	9.05E+00	1.44E+01	9.21E+00
ERF	7.61E+00	9.44E+00	1.16E+01	9.43E+00
EW	6.11E+00	8.93E+00	1.44E+01	9.26E+00



ColHei (SPL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the SubPlinian (SPL) scenario?

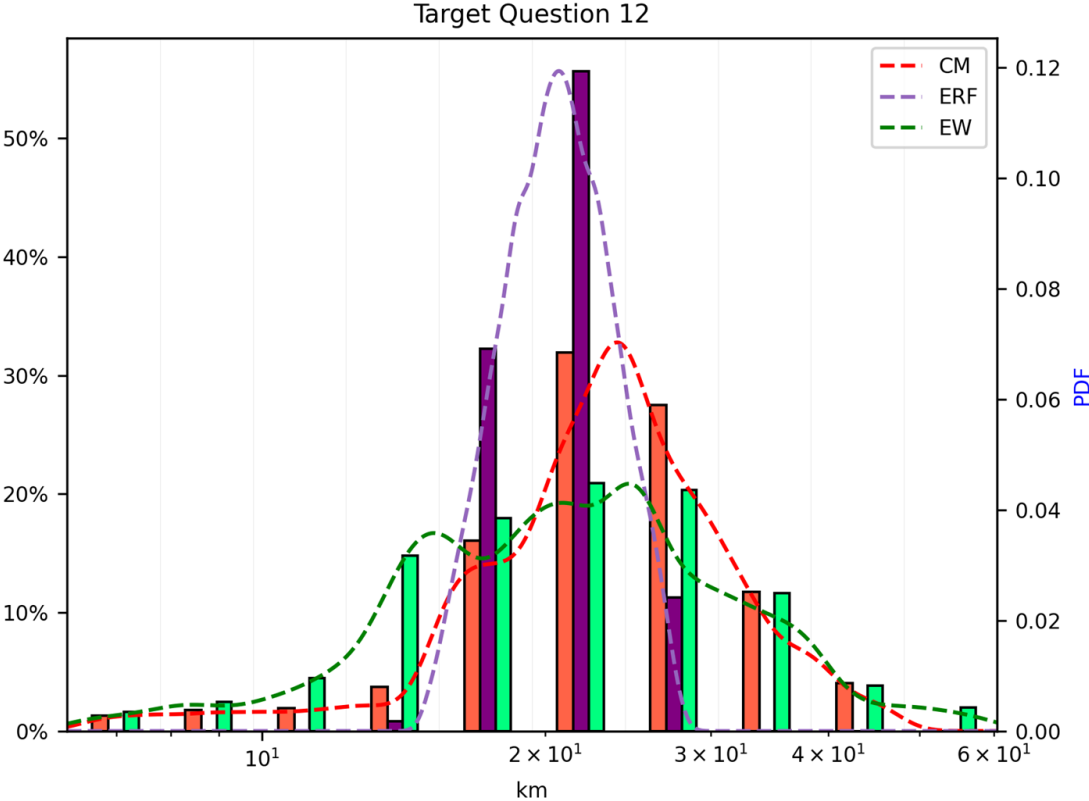
	Q05	Q50	Q95	Qmean
Cooke	9.83E+00	1.75E+01	2.73E+01	1.71E+01
ERF	1.20E+01	1.51E+01	1.87E+01	1.50E+01
EW	8.67E+00	1.55E+01	2.64E+01	1.53E+01



ColHei (PL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average eruptive column height (in km above the crater) expected for the Plinian (PL) scenario?

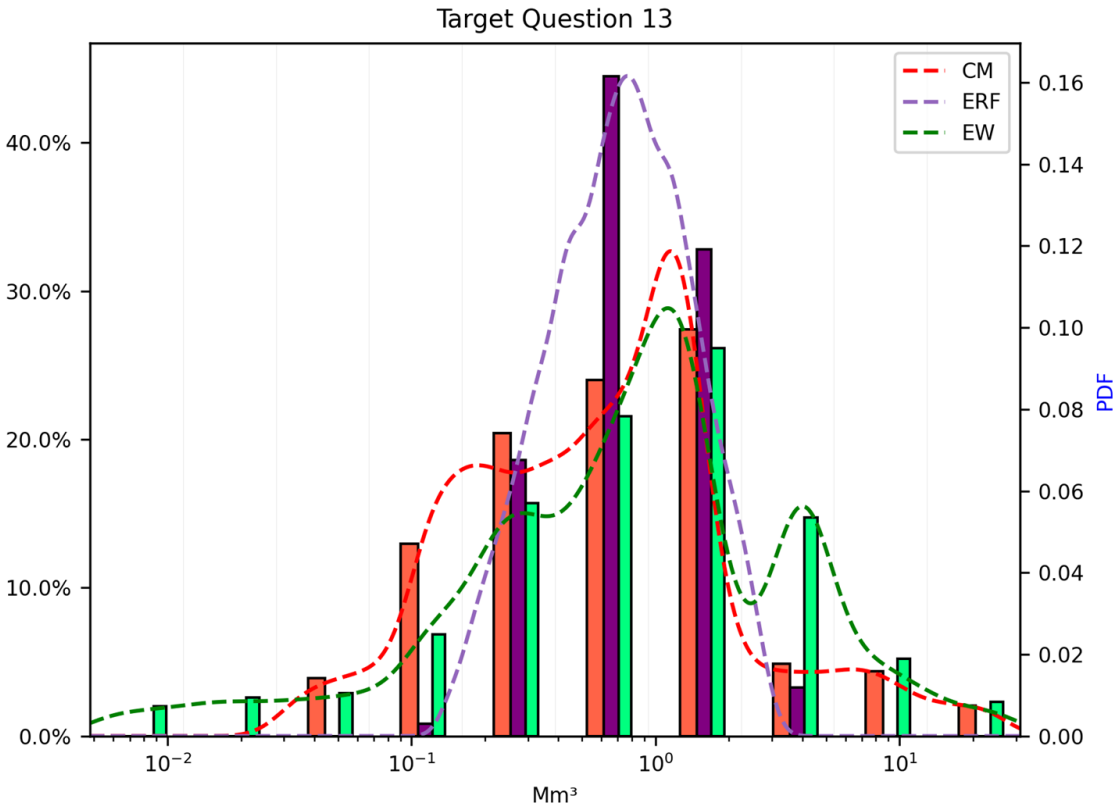
	Q05	Q50	Q95	Qmean
Cooke	1.23E+01	2.35E+01	3.73E+01	2.27E+01
ERF	1.65E+01	2.06E+01	2.56E+01	2.06E+01
EW	1.05E+01	2.12E+01	3.90E+01	2.09E+01



TotVol (SAV)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Strong Ash Venting (SAV) eruptive scenario?

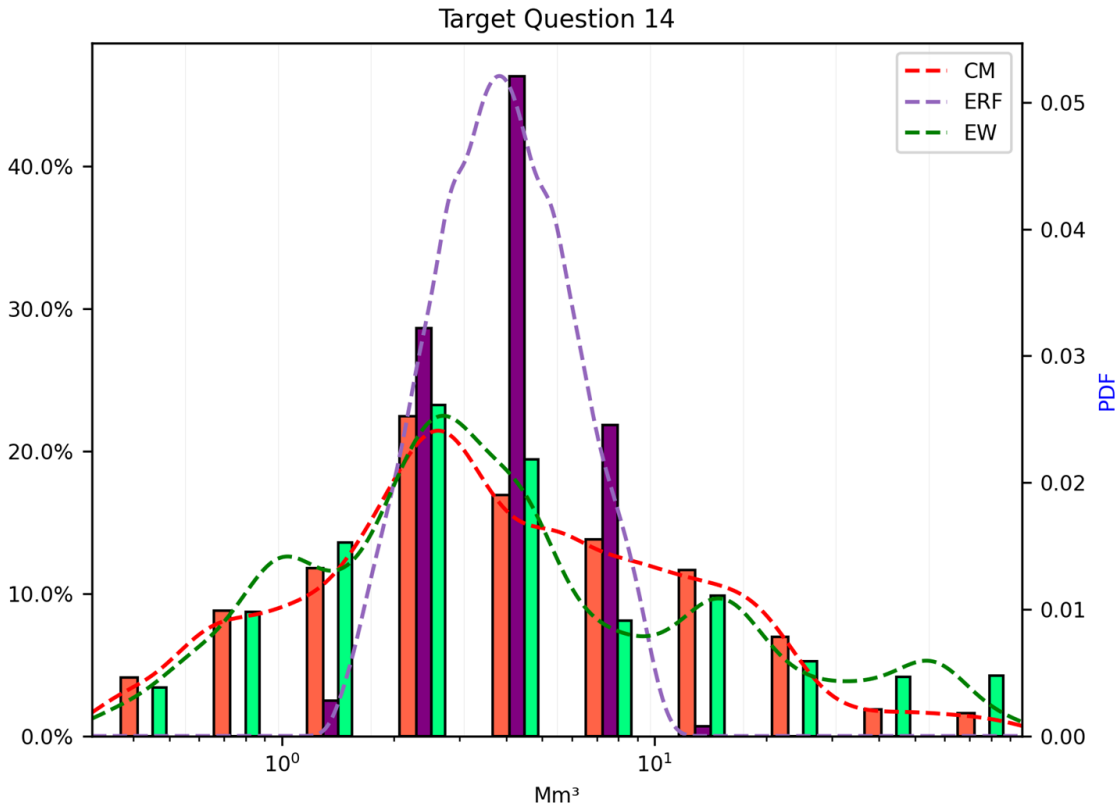
	Q05	Q50	Q95	Qmean
Cooke	8.14E-02	6.32E-01	6.79E+00	5.95E-01
ERF	2.26E-01	7.32E-01	2.05E+00	7.09E-01
EW	3.16E-02	8.89E-01	7.74E+00	7.32E-01



TotVol (VS)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Violent Strombolian (VS) eruptive scenario?

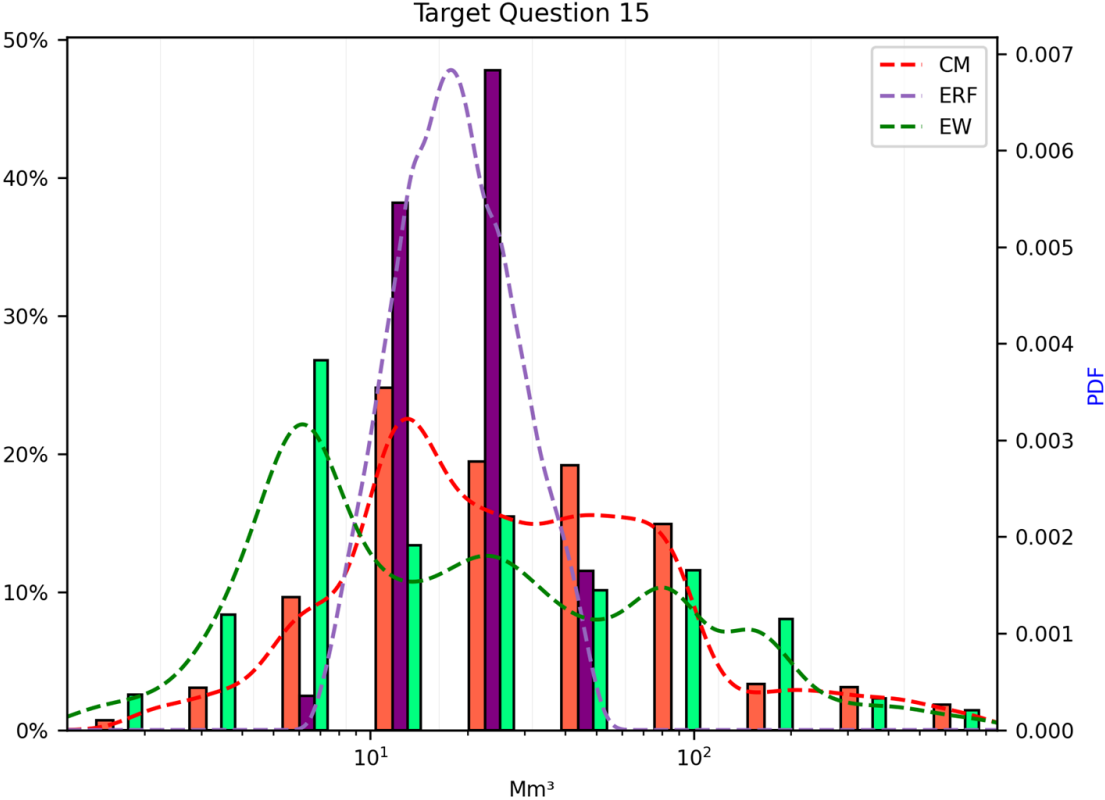
	Q05	Q50	Q95	Qmean
Cooke	5.85E-01	3.38E+00	2.36E+01	3.77E+00
ERF	1.92E+00	3.87E+00	7.97E+00	3.89E+00
EW	6.31E-01	3.18E+00	5.00E+01	3.92E+00



TotVol (SPL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the SubPlinian (SPL) eruptive scenario?

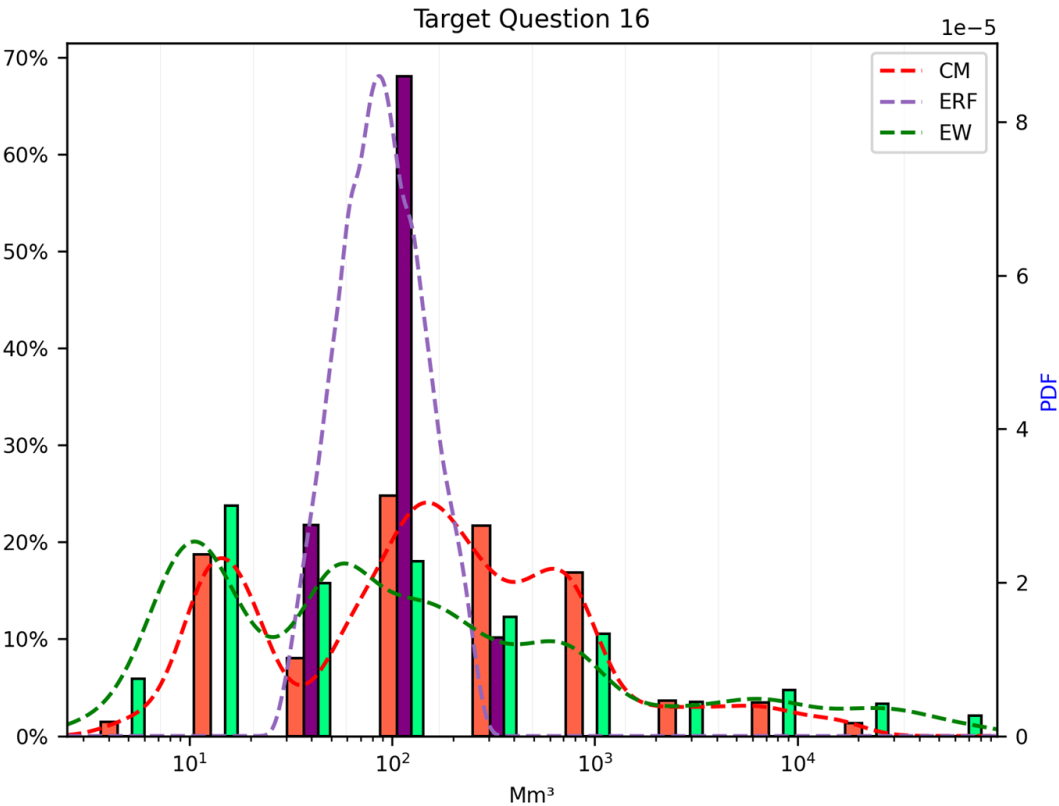
	Q05	Q50	Q95	Qmean
Cooke	5.13E+00	2.40E+01	2.30E+02	2.69E+01
ERF	9.25E+00	1.81E+01	3.82E+01	1.84E+01
EW	3.14E+00	1.55E+01	1.88E+02	1.88E+01



TotVol (PL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the bulk volume for fallout deposits (in 10^6 m^3 , equivalent density 1000 kg/m^3) expected for the Plinian (PL) eruptive scenario?

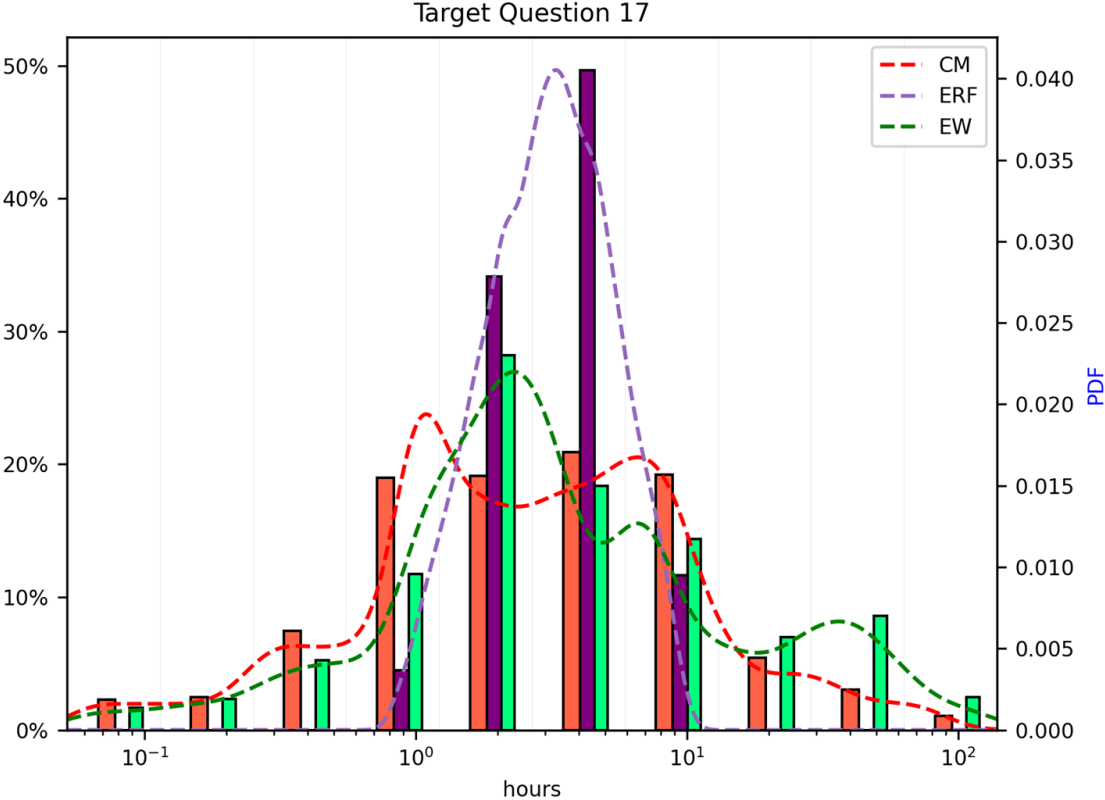
	Q05	Q50	Q95	Qmean
Cooke	1.08E+01	1.54E+02	3.86E+03	1.48E+02
ERF	3.97E+01	8.78E+01	2.02E+02	8.85E+01
EW	6.98E+00	6.98E+01	1.41E+04	1.14E+02



Dur (SAV)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Strong Ash Venting (SAV) eruptive scenario?

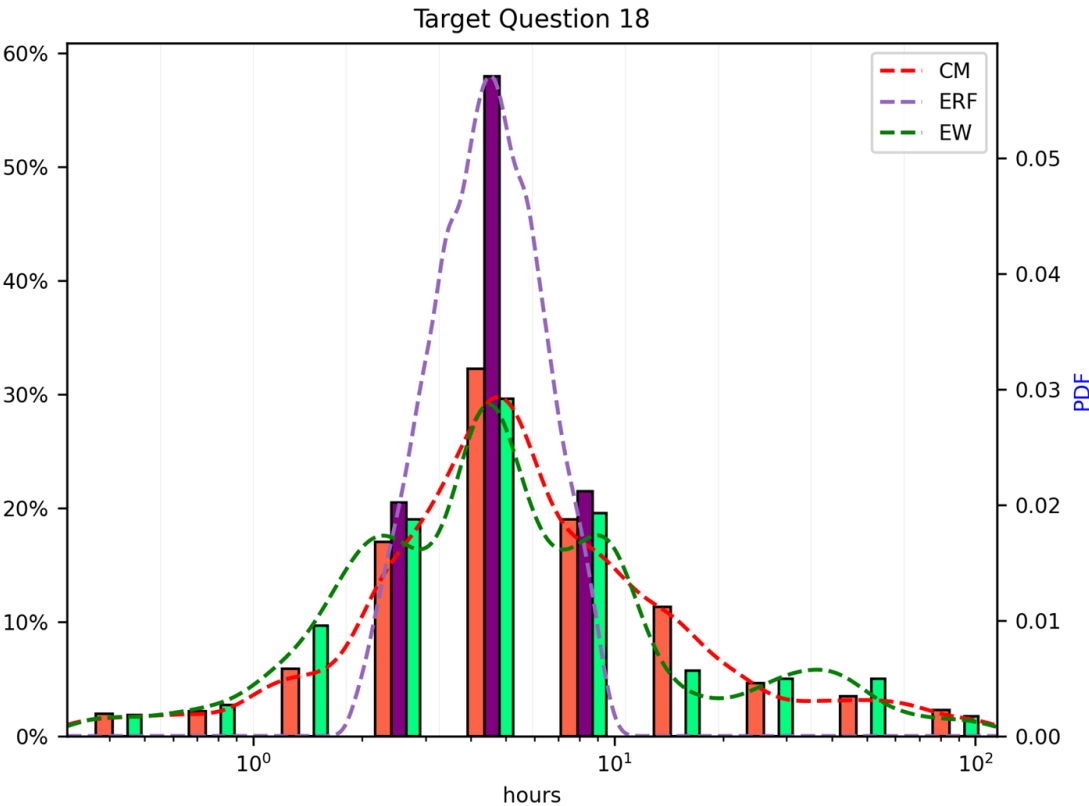
	Q05	Q50	Q95	Qmean
Cooke	2.56E-01	2.64E+00	2.52E+01	2.56E+00
ERF	1.25E+00	3.17E+00	7.26E+00	3.10E+00
EW	3.04E-01	2.75E+00	4.67E+01	3.35E+00



Dur (VS)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Violent Strombolian (VS) eruptive scenario?

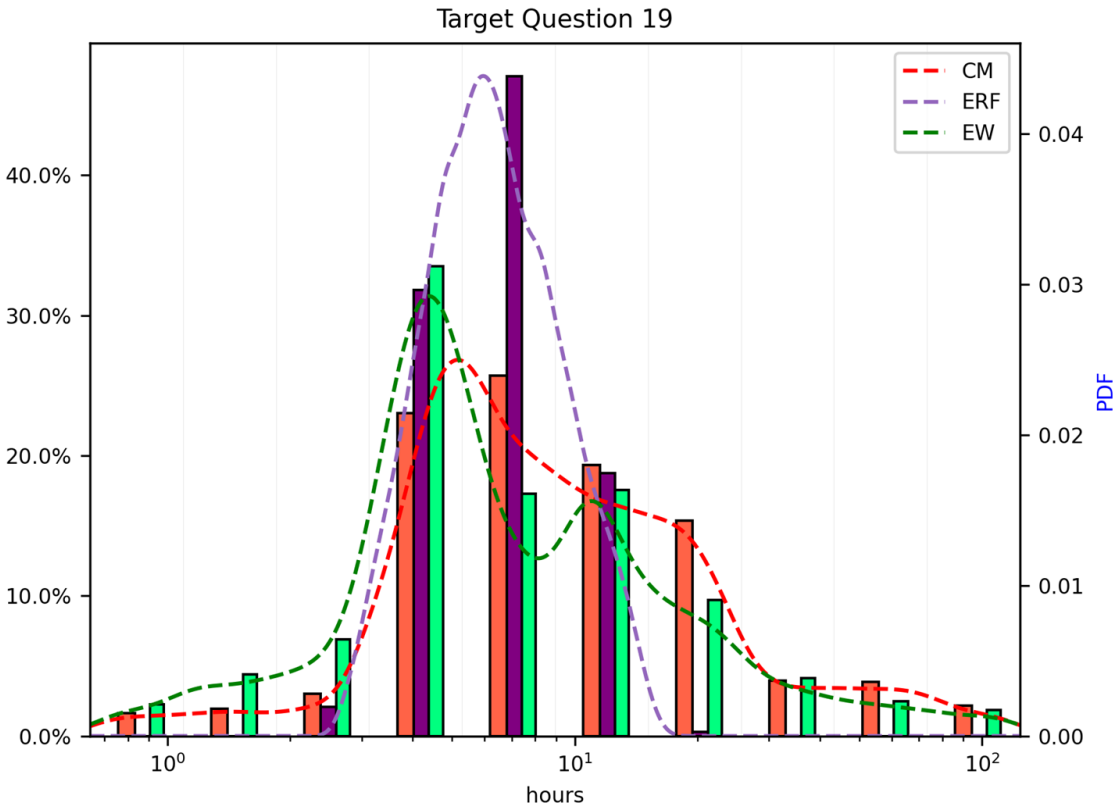
	Q05	Q50	Q95	Qmean
Cooke	1.10E+00	5.08E+00	4.05E+01	5.55E+00
ERF	2.46E+00	4.47E+00	7.83E+00	4.43E+00
EW	1.04E+00	4.59E+00	4.07E+01	5.03E+00



Dur (SPL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the SubPlinian (SPL) eruptive scenario?

	Q05	Q50	Q95	Qmean
Cooke	2.58E+00	7.87E+00	4.94E+01	8.81E+00
ERF	3.46E+00	6.19E+00	1.21E+01	6.29E+00
EW	1.54E+00	5.58E+00	3.83E+01	6.82E+00



Dur (PL)

Given the recent activity and your knowledge about Sangay eruptive history and analogous eruptions, what is the average duration (in hours) expected for the Plinian (PL) eruptive scenario?

	Q05	Q50	Q95	Qmean
Cooke	2.87E+00	9.80E+00	7.19E+01	1.09E+01
ERF	4.42E+00	8.38E+00	1.65E+01	8.44E+00
EW	1.51E+00	8.15E+00	6.93E+01	9.00E+00

