We re-examine Mersenne's critique of Giordano Bruno concerning the question of the extension of the universe and the plurality of worlds as well as that of universal animation. For this, it is necessary to distinguish, especially in the examination of the first question, the strictly cosmological problem from its metaphysical and theological foundation in which the relation between God and the universe is resolved. Mersenne's critique fundamentally concerns this second side of our problem, according to his conviction that Bruno repeats the age-old errors of philosophical paganism and reaffirms an ‘impiety’ completely incompatible with Christian doctrine.

Marin Mersenne’s critical reaction to the diverse aspects of Giordano Bruno’s philosophy that had come to his attention, particularly its cosmological components and the relationship the Italian philosopher established between the universe and God, has been the object of several important studies. Setting aside the consideration of the subject in R. Lenoble’s foundational monograph (Lenoble 1971, pp. 259–264) as well as in other classical monographs of French authors like J.-R. Charbonnel or H. Busson (Charbonnel 1919; Busson 1933), those who have dealt with it more continuously have been mainly Italian scholars. From N. Badaloni’s 1958 inaugural study (Badaloni 1958, pp. 489–492) and the quick review within S. Ricci’s vast study of Bruno’s posthumous fortune which he has continued discussing in his more recent remarkable study (Ricci 1990, pp. 86–95; Ricci 1996, pp. 25–29), to A. Del Prete’s successive works (Del Prete 1998, pp. 139–161; 2000, passim; 2002, pp. 437–440), the examination of this problem has become sharper and more precise, as the

I thank Ramon G. Mendoza for the English translation of the Spanish original version.
complexity of the French author’s reaction to the Italian thinker’s speculative audacities has become increasingly clear. Additionally, in recent years Claudio Buccolini’s research has made an important contribution not only by the precision of his analyses but also by his discovery and publication of some of Mersenne’s unedited manuscripts that attest to his permanent attention to Bruno after the frantic years of apologetics against impiety, that is, of Mersenne’s intense publicizing activity between 1623 and 1625 (Buccolini 1999, 2000). Having occupied myself cursorily with the problem (Granada 2000, pp. 131–134),¹ my objective in this presentation is to undertake a reexamination starting from the contributions I have indicated and several other studies on the cosmological, philosophical, and theological debate of that historical moment with the intention of making a provisional assessment.

1. Quaestiones in Genesim (1623)

In 1623 Mersenne joins the phalanx fighting impiety by publishing a thick volume he began to write two years before: the *Quaestiones celeberrimae in Genesim*. Bruno’s name appears only in the Prologue which was written for publication in 1623, specifically within the frame of a solemn declaration addressing the Italian *novatores* (Campanella, Bruno, Telesio), as well as the European scientists championing a new science (Kepler, Galileo, Gilbert) to ‘protest’ and proclaim that Catholic doctors and theologians not be blindly submissive to Aristotle, but follow him only when he is in agreement with experience and reason, since they only submit to God, the author of truth (Lenoble 1971, p. 224). Everything seems to indicate that Mersenne still does not know Bruno directly and that his information about Bruno’s philosophy proceeds from what he has been able to learn about it in Kepler’s work (through the critique of the Brunian conception of the infinite and homogeneous universe and the infinite worlds in De stella nova of 1606 and the *Dissertatio cum Nuncio Sidereo* of 1610) and also in Campanella’s *Apologia pro Galileo*, published in 1622. Accordingly, there is not enough evidence to look for the first act of the critique and confrontation with Bruno in this work of Mersenne.

Nonetheless, the majority of authors dealing with this subject start by studying the *Quaestiones in Genesim* and specifically Mersenne’s discussion of the *Quaestio XIX (De mundis)* in his two articles: I. “Whether in addition to this world which we know was completed on the seventh day there

¹. In Spain the important essays by C. Gómez 1997a and 1997b must be mentioned. Recently in France J. Seidengart has devoted a brief, but insightful essay to the subject; see Seidengart 2003 (for the most part reprinted in Seidengart 2006, pp. 302–316). For another recent contribution in France, see Margolin 2004.
is some other one unknown to us” (in which Mersenne adduces a series of reasons in favor of the plurality of worlds); II. “Where it is proven that the world is only one and objections are answered.” Undoubtedly, the reason for focusing on these passages is that although Mersenne is not thinking specifically about Bruno and actually had not yet become familiar with his work, he broaches a fundamental Brunian subject with this question, which will draw his attention to Bruno’s work in his polemic of 1624 (by which time he had already read Bruno). However, there is no further reason for regarding these pages as a prelude to a future polemic with Bruno in place of other passages where Mersenne discusses certain problems that are going to be the object of his polemic with Bruno as well: the eternity or the creation of the world in time or the existence of the soul of the world and the earth. I believe it is possible to connect this predilection or focalization with the fact that the plurality of worlds (connected with the infinity of the universe, although logically independent of it) is a central theme in Bruno and in the scientific revolution of the seventeenth century; Mersenne’s position regarding this, with the nuances and the evolution that his work manifests since 1623, is an indication of his place in this process.

Focusing, however, on the question about the extension of the universe and the plurality of worlds, it is also convenient to specify that the information Mersenne has about Bruno in 1623 derived from Kepler and Campanella seems to be of a strictly cosmological nature. In fact, in their information about Bruno in the works we have indicated, Kepler and Campanella expound, with a more or less critical reservation, Bruno’s cosmological conception of an infinite and homogeneous universe consisting in an infinite repetition of solar systems (which began with the identification star-sun) and consequently of ‘worlds’ (in the sense of systems as well as of heavenly bodies). On the contrary, they made no reference to the relationship of derivation between the universe, the worlds, and the divine cause that produced them. This conditioning is important because it indicates that for Mersenne, at least in the question De mundis, Bruno appears as yet another member of the phalanx of those who maintained the plurality of worlds. It also allows us to understand that the question does not have a special gravity from a theological point of view, since the fundamental principles of Christian theology do not seem to be questioned or threatened by the defenders of the plurality of worlds, at least not explicitly. Moreover, the thesis of the plurality of worlds is presented, in the

2. See the comments in Margolin 2004, pp. 442–444.
opinion of those who stand for it, as perfectly coherent with sound Christian piety.

The thesis of the plurality of worlds is presented by Mersenne as the opinion of a personage “mihi charissimus” and “mihi amicissimus” (“my most beloved and my dearest friend”), who holds it not pertinaciously at all, but who declares to be ready to “submit himself entirely, should it differ from the opinion and doctrine of the Catholic Church, in whose bosom he hopes and has determined to remain until his last breath” (Mersenne 1623, col. 1081 and 1078 [?1086]). With this disposition, the arguments adduced in favor of the plurality of worlds can be grouped in the following way: 1) such was the opinion of authorized ancient philosophers; 2) it is what is due to the infinite power and goodness of God according to the principle of plenitude (arguments 3–6); 3) this is what apparently can be deduced from Galileo’s telescopic observations and from such heavenly novelties as the nova in Cassiopeia (1572) and the comets (argument 7). In this last instance it can be noticed that Mersenne tends to use the word ‘mundus’ in a double sense: on the one hand, as heavenly body or inhabited star, based on the analogy of the telescopic phenomenology of the moon with our ‘world’ (the Earth) in the light of Kepler’s interpretation in the *Dissertatio* or the finality of Jupiter’s satellites: the constructions of the Moon show that it is an inhabited world, and that Jupiter’s satellites, although they are invisible to us, shine for the inhabitants of that region. On the other hand, ‘world’ means a group of heavenly bodies with sun, moon, and different animals in either one of them because it is possible that the stars in the firmament are witnesses of other worlds different from ours, “for which they may be like the sun and the moon” (Mersenne 1623, col. 1076 [?1084]). In relation to this last usage, it is possible to interpret the new stars as the one in Cassiopeia (1572) or the comets (whose heavenly character has been demonstrated by Tycho Brahe) as messengers from other worlds.

Mersenne puts the plurality of worlds in the mouth of the advocate of the conviction—already expressed by Campanella in his *Apologia pro Galileo*—that this doctrine is not explicitly condemned by the Scriptures and by the Church nor has it ever been declared heretical. On the other hand, it is clear that this poses delicate or even ‘absurd’ problems as, for example, whether the presence of human beings in the other worlds implies that “the Son of God assumed their nature or has died for them too.” In any case, it is acknowledged that all these theological difficulties can be coped with if it is stated that the creation of this or any other world is the result of a free divine decision, taken in the moment and in the manner ar-

bitrarily chosen by God: “Verum his omnibus facillime quis occurret, si responderit Deum hunc, aut illum mundum, vel etiam plures pro libitu creasse, ubi voluit, quando et quomodo voluit” (Mersenne 1623, col. 1078 [?1086]; our emphasis).

An appeal to the divine free will, besides putting it in the mouth of the advocates of the pluralist thesis, is in line with Mersenne’s position with respect to the problem, and is a prelude to the basic premise of his later response to Bruno’s necessity argument. This becomes clear in the second article of the quaestio. Here Mersenne reiterates that the oneness of the world is not a truth of faith, since it is not clearly stated in the Scriptures, nor has it been defined as such in any ecumenical council. It is clearly a theme of theological disputation (“theologia argumentatrix”) and for this reason the opponent may not be branded as heretic, but at most as ‘temerarious’ (Mersenne 1623, col. 1079 [?1087]).

In any case, Mersenne adduces some counterarguments that in his opinion soundly refute those that have been previously raised in favor of the plurality. These are counterarguments that function more or less in the field of theology alone, whereas, practically setting aside the strictly cosmological and physical arguments, they also anticipate—as we have said—the principles of his critique of Bruno’s infinitism. Thus, with regard to the appeal to the authority of the ancient philosophers (argument 2), Mersenne responds that their affirmation of an infinite universe and of infinite worlds was founded on a “very confused notion of God and full of errors” which led them to think that God “acts naturally and necessarily,” thereby producing an infinite effect: “for what else did they think could proceed from an infinite agent that operates with all its potency other than something infinite?” (Mersenne 1623, col. 1090). This, then, shall be exactly Bruno’s theological premise, a premise that also intends to restore the notion of divinity—in his opinion the correct one, though distorted by Scholastic theology—a common trait of the ancient philosophy, but which Mersenne considers heretical from his Christian point of view.

Likewise, Mersenne opposes the correct and genuine Christian conception of God to the arguments 3–6 that functioned from the principle of plenitude. Since God is a “most free cause” (“causa liberrima”), it makes no sense to investigate the cause of His actions, because these proceed simply from His will: “it is most certain that God’s will is the sole cause of whatever he does” (“certissimum est eorum quae facit, solam causam esse voluntatem ipsius,” Mersenne 1623, col. 1091). This is nothing but a

5. See Gilson 1913, pp. 149–156 (where Mersenne’s position on divine freedom is connected with St. Thomas); Lenoble 1971, pp. 272–281 (where the indebtedness to nominalism is highlighted) and Dear 1988, pp. 53–62 for a more balanced position.
solid and radical affirmation of voluntarism, which we can relate to Aquinas, but to the Scotist and nominalist traditions as well. To the voluntarist foundation of creation is added the rejection of the necessity or convenience of the effective realization of possibility. Indeed, the plurality of worlds is possible for God and his infinite power, but Mersenne affirms that the effective realization does not add anything to God. It suffices for the infinite greatness of God that he can act infinitely, although de facto does not act infinitely. Evidently, although Mersenne never makes it explicit, his counterargument is based on the Scholastic distinction between God’s absolute power (potentia absoluta: God can absolutely do everything that is possible, that is, everything that does not imply contradiction) and God’s ordained power (potentia ordinata), namely, the absolutely possible that his free will wants to produce, that is, the effective creation. It is the absolute power that evidences the divine infinity: the effective production adds nothing to God.6

Against the seventh argument (the only one founded on cosmological considerations, based specifically on the heavenly novelties and the evidences of the telescope), Mersenne objects that this is nothing but a ridiculous argument: novae, comets, satellites of Jupiter and so forth, cannot be in another world since they are in this one. How can they be messengers of a world that does not exist other than in our imagination?

Finally, by continuing the polemic against the principle of plenitude and by appealing to the distinction in the divine power, Mersenne insists that what is possible (from potentia absoluta), does not need to be real (to exist from potentia ordinata). The selective filter of the divine free will keeps them apart (Mersenne repeats: “The Creator’s will is the only cause of all things”) and, on the other hand, whatever may be the number of worlds created by God in virtue of the mere possibility of being, would necessarily be a small number with regard to God’s absolute, infinite power. Evidently, Mersenne takes for granted that the plenitude, in the realization of the worlds, never passes from what is infinite in potency to what is infinite in act. No matter how large the plurality of worlds is, it would never be an infinity of worlds and consequently it would always be null compared to the infinite God: “whichever quantity and all the other

6. Mersenne 1623, col. 1091: “I say we do not concede properly to God more, when we declare him author of a plurality of worlds, than when we affirm that these worlds are possible to him. That he makes or not what is submitted to his power certainly adds nothing to his perfection” (“Dico nos non plura Deo proprie concedere, cum plurimorum mundorum autorem illum facimus, quam dum mundos istos ei possibles affirmamus: nihil siquidem ad eius perfectionem accedit, quod faciat, vel non efficiat, quae eius subsunt potestati”). On the distinction between absolute and ordained power in the Middle Ages see Oakley 1984; Randi 1987; Courtenay 1990.
things outside God are necessarily finite; between the finite and the
infinite there is no proportion” (“omnis quantitas, & caetera, quae sunt ex-
tra Deum, finita esse necesse est; finiti vero ad infinitum proportio nulla
est,” Mersenne 1623, col. 1092). Mersenne does not envision the possibil-
ity of an actual infinite, since only God is infinite. Here, too, a frontal op-
position avant la lettre is already set up against Bruno (who considers that
God can only produce and therefore necessarily produces a universe actu-
ally infinite and an actual infinite plurality of worlds in its bosom).
Mersenne, in turn, reserves the actual infinity for God and considers that
God’s actual and necessary production cannot be required ad extra (that is,
along the lines of a creation of a universe external to God, or a plurality of
worlds external to God), because that would be “an infinite effect equal to
God” (“infinitum effectum Deo coaequalem”), indeed simply “another
God” (“alter Deus”). We already have this infinity—even with the charac-
ter of necessity—ad intra, with the three persons of the Trinity, namely,
with God himself. In sum, the distinction between the ad intra action of
God whereby the infinite essence of God necessarily triplicates in the three
Trinitarian persons which nonetheless constitute one single substance, and
the free and contingent creation ad extra, is another theological principle
that binds with the distinction in God’s power and with the voluntarism
or divine freedom to reject the plurality of worlds and very specially its in-
eluctable necessity. But also with this point Mersenne anticipates his rad-
cial opposition to Bruno, whose infinitist arguments are based—as
Mersenne was about to confirm right away—on the negation of the dis-
tinction in the divine power and between the ad intra and ad extra levels.
At the same time, we can understand that, for Mersenne, Bruno’s infinite
universe was inevitably a second God (“alter deus”).

2. The explicit and radical confrontation: L’impieté des déistes of 1624

A) The critique of the necessity of the infinite universe

As is well known, it is in Mersenne’s second apologetic work, L’impieté des
déistes, athées et libertins de ce temps, published in two volumes in 1624,
where he explicitly and very radically confronts Bruno. It was surely in the period of time stretching between both works that Mersenne read directly some of Bruno’s works that were circulating in the libertiné milieu, and immediately realized the danger they represented to the Christian religion. On the other hand, Mersenne confronts Bruno from a purely theologico-religious perspective of *impiety* (that is to say, of irreligion including atheism) and not from a purely philosophical or cosmological perspective, corresponding exactly to the plan and objectives of his work of 1624 (Seidengart 2003, pp. 154, 163).

In fact, it is in the footsteps of Charron, Machiavelli, and Cardano that Mersenne takes Bruno into account, undoubtedly because of his prestige and influence on the French and Parisian libertiné movement he tries to invoke. Although the Minim friar never got to know Bruno’s moral dialogues (especially the *Expulsion of the Triumphant Beast* and the *Cabala del cavallo pegaseo*), the first volume of *L’impiété des déistes* shows that he had read two of Bruno’s Latin works which were sufficient to provoke his indignation and to label Bruno, due to his incompatibility with Christianity, as “one of the worst men who has been on Earth” (“un des plus meschans hommes que la terre porta jamais,” Mersenne 1624, I, p. 230).

Since this chapter of Mersenne’s critique has been studied very efficiently by Claudio Buccolini (Buccolini 2000), we shall limit ourselves to gathering only the most important aspects along the lines of our analysis.

Mersenne confronts Bruno because the Nolan did not engage in a discussion strictly on the grounds of philosophy or mathematics, a terrain into which Mersenne initially brought back the question about “his infinite worlds in the stars” (“son inftié des mondes estoilés”), in which case Bruno could be “excusable,” but because “he went well beyond this and attacked the Christian Truth.” This explains Mersenne’s radically damnatory judgment and his critique.

Thus, Mersenne does not confront Bruno’s infinitism, although it seems that he knows of it with at least some accuracy, since he knows that Bruno intends to demonstrate this infinitude by proving the necessity of the process of divine creation: “he intends to prove that God has no freedom, in order to persuade of his infinite worlds” (“il tasche de prouver que Dieu n’a point de liberté, afin qu’il persuade ses mondes infinis,” Mersenne 1624, I, p. 231). To this statement, which shall be the object of a detailed refutation in the second volume of the work published the same year, Mersenne already opposes the absolute contingency and arbitrariness of the finite individuals (the earth, its dimensions and distance from the sun).

and above all the fact that God can do many things that he did not want to do and has not done, that is, the distinction *potentia absoluta/ordinata Dei*. However, Mersenne first and very quickly confronts the Latin poem *De minimo* (1591), in which Bruno had established his atomism. But the Minim friar does not denounce atomism, which he mentions and passes over without any problem since it is merely a philosophical question, but rather confronts the formulation of a doctrine of the soul that is extremely dangerous and completely incompatible with the Christian religion: namely the doctrine (in the third chapter of the first book) of the “transmigration of souls” and consequently the rejection of the “[transcendent] immortality of the rational soul,” that is, the doctrine that reduces the human soul to the same natural dimension as the soul of animals and plants.

But the brunt of his critique is directed against a previous Latin work, the *Sigillus sigillorum* (1583) and the doctrine of the *contractions* of the soul exposed there, where Mersenne avows that Bruno has been “worse than Cardano,” because he has exceeded all the precautions and limits by reducing the Christian religion to a merely natural effect, thereby depriving it of every supernatural and revealed origin. According to Mersenne, this doctrine has no purpose—and he is not wrong about this—other than “to undermine the foundations of true religion” (“sapper les fondemens de la vraye religion,” Mersenne 1624, I, p. 233). It is this element once more, common to the tradition of the libertine naturalism, that makes Bruno the object of Mersenne’s critique within the frame of the refutation of impiety, after the critique of Cardano. Mersenne expresses his indignation at the reduction of miracles, prophecy, and faith to purely natural phenomena (Buccololini 2000, pp. 512–518).

9. Mersenne 1624, I, p. 232: “he could [. . .] have done a thousand of things that he did not will to do” (“il pouvait [. . .] faire mille choses qu’il n’a pas voulu faire”). As we have pointed out elsewhere, the formula “Deus potest magis quam vult” (“God can do more than he wills”) or “Deus potest magis quam facit” (“God can do more than he does”) is usually mentioned in the Scholastic tradition to illustrate the distinction in the divine power. See Granada 1994. Similarly, the last chapter of the work reaffirms, without getting involved in the polemic with Bruno, God’s liberty with respect to the creation (radically contingent), and man’s excellence as final cause of the creation: “God had no need [. . .]; briefly, he could have dispensed with all the creatures for all eternity, but it pleased him to create them in order that all bodily creatures would serve man, and man God” (“Il [God] n’avoit pas besoin [. . .]; bref il se fust aussi bien passé de toutes les creatures, comme il s’en soit passé de toute éternité: mais il luy a plue de les creer, à ce que toutes les corporelles seruissent à l’homme, & l’homme à Dieu,” p. 817).

10. Mersenne 1624, I, pp. 230 f. Mersenne has become aware of the fact that Bruno reduces man to the level of pure nature, without any prerogative over the rest of creation. Although he does not mention it explicitly, he is already aware of Bruno’s ontological monism and the identification of God with the infinite nature.
The preface to the reader, placed at the beginning of this first volume of *L’impieté*, and written after it was already finished, anticipates the content of the second volume and takes Bruno to task, which in fact will occupy the largest part of it: “Finally, I will answer the reasons advanced by Bruno in order to establish the infinite worlds and the soul of the universe” (“En fin ie respondray aux raisons que Jordan Brun met en avant pour establir l’infiniité des mondes, & l’ame de l’Univers,” Mersenne 1624, I, sig. i ij). We can infer from it, along with the reference to Bruno’s infinite worlds, that Mersenne knows Bruno’s doctrine in these two decisive points when he is composing the first volume (the dedication to Cardinal Richelieu is dated June 8, 1624) and that he decides to reserve his refutation for the ‘second part’ of the work which was published a few months later of the same year. Thus, this is not about a discovery on Mersenne’s part of further (and more serious, if at all possible) elements of Bruno’s impiety, but rather about a delay in the refutation, which is certainly brief since the dedication of this second volume is dated July 9.

In any case, the second volume continues with a condemnation of Bruno from a theological and religious perspective, but centers now on two Italian dialogues, the *De l’infiniito universo e mondi* and the *De la causa, principio et uno*. As already indicated (Del Prete 1998, pp. 148f.), Mersenne does not take into consideration the cosmological aspects of Bruno’s conception of an infinite and homogeneous universe, which consists in an infinite repetition of solar systems, nor the derivation a posteriori of the infinitude and homogeneity of the universe, that is, from the “passive potentiality of the universe” (Bruno 2006, p. 17). He leaves all this aside, coherent with the programmatic declarations already expressed and with the theologico-religious objective of his apologetic work, in order to focus on the decisive point. This point is none other than the theological dimension of Bruno’s infinite as far as it is derived from a specific conception of God’s relation to the universe, which is for Mersenne impious and radically subversive to Christianity. Furthermore, Bruno’s metaphysical doctrine of the soul of the universe as a constituting principle along with the matter of the one and infinite universe is radically incompatible with the Christian religion. Mersenne’s interest in his refutation of Bruno is explained by the fact that the Italian philosopher is the theoretical foundation of impiety (in tune with the preliminary verses of I. Villeneuve and the explicit declaration of Mersenne himself throughout the work): “He refutes most wisely / Giordano Bruno’s teaching / on which impiety is founded” (“Il renuerse fort sagement / de Iordan Brun l’enseigment / sur qui l’impieté se fonde,” Mersenne 1624, II, preliminary pages non numbered), the poet says, to which Mersenne gives his confirmation: “the libertines say that he is the most subtle of all who serve as rampart for their
impiety” (“les Libertins disent qu’il est le plus subtil de tous ceux qui servent de rampart a leur impiété,” Mersenne 1624, II, p. 369). Bruno is, in sum, “an atheist, who has been burnt in Italy for his impieties” (“un Athee, qui a esté bruslé en Italie pour ses impiétés,” Mersenne 1624, II, p. 299).

We must start by saying that Mersenne is not particularly worried about the world being infinite. He does not believe it is, but he does not mind if it is, because the infinity of the universe is simply possible. We do not have to wait for the correspondence with Jean Rey of 1631–1632 for Mersenne to accept the possibility of an infinite universe, although the confirmation of this infinitude is very probably beyond the reach of experience and human reason (Mersenne 1624, II, p. 321). In the second volume of *L'impiété*, Mersenne very clearly affirms that the infinite divisibility of the continuum not only evidences the existence of a potential infinite, but also that, contrary to Bruno, an infinite body can have parts, and these parts, in turn, can be infinite. In sum: the infinite in act (and therefore the infinite universe) is possible, since it does not imply contradiction, and contradiction is the only limit to the divine power (obviously not due to an impossibility *a parte Dei*, but *a parte obiecti*: what is contradictory cannot be done). This is the passage in question, which, on the other hand, rests directly on the standard conception of the divine *potentia absoluta* in the Scholastic tradition and its limit in the principle of contradiction (even if Mersenne does not say so):

I will only say that up until now I had no reason that proves this infinite [in act] is repugnant or is impossible. On the contrary, I want to deny to the divine power only that which implies and comprehends a manifest contradiction (Je vous diray seulement que ie ne point eu iusques a present aucune raison, qui demonstre que cet infinie [en acte] repugne, & soit impossible : or ie ne veux jamais rien denier a la puissance divine, que ce qui implique, & enferme une manifeste contradiction,” Mersenne 1624, II, p. 349)

Mersenne’s polemic is directed against the ontological modality which Bruno attributes to the infinite universe and its innumerable worlds: the necessity, extended as well to the temporal level, which ends up by giving a statute of divinity to creation, reduces most dangerously and impiously the difference between the divine Creator and his creation, thereby disposing of the divine prerogatives, God’s absolute sovereignty.

11. Here it seems that Mersenne has undergone a change: the infinite in act, other than God, is accepted as possible.
Mersenne’s refutation comes directly from reading in a faithful and complete French translation Bruno’s arguments in the first dialogue of *De l’infini*, more specifically from its second part, where Bruno argues a priori, that is, from the idea of God itself, or, as he says, “by the active power of the efficient” (Bruno 2006, p. 17), “from the circumstances of the efficient that must have produced it [the universe] as it is [infinite] or, to be more correct, as it always has been” (Bruno 2006, p. 83). Mersenne does not allow any demonstrative value to Bruno’s arguments, which in his opinion rest on ‘paralogisms’ (Mersenne 1624, I, p. 300), that is, on flawed and invalid reasoning, due to the falseness of his premises and presuppositions. The Minim friar’s refutation proceeds basically according to three axes that were already present in the *quaestio* of the previous year, which we now present as concisely as possible.

In the first place, Mersenne points out that the necessity of the infinite (and eternal) universe proceeds from the “very false foundation [that] God acts necessarily” (“fondement [. . .] tres-faux” that “Dieu agissoit nécessairement”) that is, that God creates or produces necessarily and hence that the universe is necessary whatever its spatial extension and temporal duration may be. This implies reducing God to the rank of a natural and necessary agent, eliminating His freedom and consequently the complete autonomy and independence of his sovereign will. Secondly, that God’s allegedly necessary creation is infinite (and eternal) derives from the supposition (false in Mersenne’s view, who here echoes the Christian theological tradition) that God proceeds or acts with all his infinite power, wherefore its effect is infinite. Evidently, Bruno argues here from the rejection of the distinction between God’s *absolute* and *ordained power*, a rejection which is implicit in the Italian dialogue of 1584 and explicit in the *De immenso* of 1591. Mersenne simply reaffirms the distinction, which is based on the

12. On Mersenne’s translation (which basically appears in ch. xv, pp. 281–298) and in general about his dialogue with Bruno’s text, see Del Prete 2000 and Granada 2000, p. 132.

13. See the introduction to Bruno 2006, pp. xlix–lx and Granada 1994, 2000 and 2002. Bruno’s rejection of the Scholastic distinction becomes explicit in *De immenso*, III, 1: “Neque distinctionem potentiae in absolutam et ordinatam, vel ordinariam introducimus illo, ubi non libertatem protestetur, sed implicit apertam contradicitionem. Est perfectio in nobis (si ita placet) ut possimus multa facere quae non facimus: blasphemia vero est facere Deum alium a Deo: voluntatem eius aliam etque aliam[m], unam quae currit cum potentia, aliam quae abhorreat a potentia” (“Let us introduce in God no distinction between his absolute and his ordained or ordinary power, where a manifest contradiction is implied beyond protestation of his freedom. It may be perhaps our perfection that we can do many things that we actually do not. It is, however, a blasphemy to make God different from himself: his will one and another, one running with power, another abhorring his power,” Bruno 1879, vol. I, 1, p. 320).
divine freedom and the supremacy of the will over the power. Accordingly, Bruno gets it wrong when “he compares God’s determined power to that undetermined and wants that it extends equally when it is determined [i.e. ‘ordained’] than when it is absolute and undetermined” (“il compare la puissance de Dieu determinee, & non determinee, & veut qu’elle s’estend autant quand elle est determinee, que quand elle est absolue, & non déterminée,” Mersenne 1624, II, pp. 314 f). This coextension of the divine potencies is nothing but their identity or indifference, that is, that such a distinction does not exist and consequently the divine power and will are coextensive. Mersenne translates Bruno’s position in the following terms: “we can conclude that will, freedom, and necessity are in him [God] the same thing; and therefore that to do, to can and to will also are the same thing” (“on peut conclurre qu’en luy volonté, liberté, & necessité sont une mesme chose; & en suite le faire, le pouvoir & le vouloir aussi une mesme chose.”)14 On the contrary, Mersenne establishes the distinction and hence the different extension of the divine power (absolute or undetermined) and of the divine will, this last being the attribute that determines the action, and its terms in function of God’s absolute freedom:

we should distinguish between God’s power and his will [. . .], inasmuch as their objects are different, because the object of God’s [absolute] power is all that is non repugnant and does not entail contradiction (the so called possible), whereas the object of God’s will are the few things which God chooses and he wills to create from the infinity of similar and different things that he leaves in the mere possibility and in the non-repugnance (il faut faire distinction entre la puissance de Dieu, & sa volonté [. . .] d’autant que leurs objets sont differens, car l’objet de la puissance divine [absolue] est tout ce qui n’enferme & ne contient aucune repugnance, ou contradiction (ce qu’on appelle possible), mais l’objet de la volonté divine est le peu de choses lesquelles Dieu choisit, & qu’il veut creer entre une infinité de semblables, & de differentes, qu’il laisse dans la seule possibilithé, & dans la non-repugnance,” Mersenne 1624, II, pp. 311f)

Whereas for Bruno the identity of power and will in God implies that everything possible becomes actual in Nature, in Mersenne, God’s free will

14. Mersenne 1624, II, p. 286. Bruno’s text reads: “[. . .] whereby freedom, will, necessity are absolutely the same thing, furthermore, doing coincides with willing, being able to, and being” (Bruno 2006, p. 89). The ‘postillatore napoletano’ of Bruno’s dialogue, about whom we shall talk below, but of whom we can already say that he makes the same
chooses only “a few things” in order to be in act, leaving the rest in the mere (absolute) possibility, non-realized in Nature. Consequently, Mersenne repeats the traditional formulas that are expressed in Scholastic theology as the separation and distinction of power and will (an attribute to which Mersenne would gladly give the ‘palm of victory,’ Mersenne 1624, II, p. 312): “we distinguish action from power in God, who can [do] many things which he nevertheless does not will to do” (“nous distinguons le faire, & le pouvoir en Dieu, qui peut beaucoup de choses, lesquelles neantmoins il ne veut pas faire,” Mersenne 1624, II, p. 304); “God can will to do something different from what he wills to do, inasmuch as he does not extend his absolute will to all that he could extend it to” (“Dieu peut vouloir faire autre chose, que ce qu’il veut faire, d’autant qu’il n’estend pas son vouloir absolu à tout ce qu’il le pourroit estendre,” Mersenne 1624, II, p. 308); “God can do infinite things which he nevertheless does not will to do” (“Dieu peut faire une infinité de choses, lesquelles neanmoins il ne veut pas faire,” Mersenne 1624, II, p. 313). Mersenne thereby entirely coincides with the critical annotations of the so-called ‘postillatore napoletano’, a Reformed Italian reader of Bruno’s De l’infinito who opposed divine freedom and primacy of will to necessitarianism (Granada 2000, pp. 128–130): “[God] can do many things which he does not will to do” (”[Deus] potest facere multa quae non vult facere”) an annotation by this reader at a particular instance. And before: “if [God] has not made your infinite or innumerable [worlds], it is not owing to a defect of power, but of will, in the same manner as his will has not made this [world] eternal, but limited in both terms: because it pleased him so. You compel him to make necessarily infinite [worlds].” (“si [Dio] non ha fatto gli vostri infiniti o innumerabili [mondi], non è per mancamento di potencia, ma di volontà, come anco questa non lo à fatto eterno, ma terminabile di duoi termini: perchè così gli à piaciuto. Voi lo mettete in necessità de far infiniti”).

Thirdly, Mersenne does not doubt that Bruno’s confusion of divine attributes in the creative operation is due to the confusion, rather than to the absence of distinction between the ad intra and the ad extra levels of the divine action, which is equivalent to saying that Bruno does not acknowledge the Trinitarian dynamics in the divine substance (he denies the Trinity) and perversely and impiously affirms that the necessary and infinite universe is the only (and sufficient) action of God, with which ultimately coincides. On the contrary, God—Mersenne affirms—undoubtedly acts necessarily and infinitely, but he does it on the interior
level of the derivation of the Son (that is, of the Word in which all the absolutely possible infinites are deposited) and of the Holy Spirit who are consubstantial and coeternal with the Father. In turn, on the exterior level of the creation of the radically contingent world, God proceeds by actualizing the possible ones that he chooses with the absolute freedom of his will. Although Bruno really rejects the Trinitarian dogma in his conception of the one and simple God thereby transferring to the universe the necessity and infinity of his substance, which in this way becomes the “unigenita natura,” in *De l’infini* he proceeds more carefully, and limits himself to declaring explicitly (leaving to the attentive reader the full comprehension of his thought) that “the *ad extra* and transitive action, in addition to the immanent one, is convenient that it be just as infinite as the other one,” and immediately adding the doubt that “something could be exterior [to God].” Mersenne, nonetheless, has noticed the question, although he does not accuse Bruno of denying the Trinity:

It is wrong reasoning to put God’s external action (which the Theologians call *ad extra*) to the very same necessity as the divine being or power: it is to speak of temporal and free things as if they were eternal and necessary; it is to mingle and confound the creatures with the Creator, and invert all kind of reason and of philosophy, because God’s being, power, and will do not depend from what he does, but on the contrary, what he does depends on his being, power, and will; however, what is not dependent can be without what is dependent. I know that God’s internal act, which is very simple, unique, and infinite, is the same thing with his power and will; but his external act, which is received by the creatures when he produces and conserves them, is different from the divine power and will, as a finite and dependent thing from an infinite and independent one (C’est mal raisonné de tirer l’action de Dieu extérieure [laquelle les Théologiens appellent *ad extra*] à la même nécessité que l’estre, ou le pouvoir divin : c’est parler des choses temporelles, & des libres comme des éternelles, & des nécessaires; c’est mésler, & brouiller les créatures avec le créateur, & renverser toute sorte de raison, & de Philosophie, car l’estre, la puissance, & la volonté de Dieu ne dépendent point de ce qu’il fait, mais au contraire, ce qu’il fait dépend de son estre, de son pouvoir, & de son vouloir; or ce qui

15. Concerning this point of Mersenne’s thought and the difference with regard to the Cartesian doctrine of the creation of eternal truths, see Marion 1981, ch. 9, especially pp. 174 ff. For a comparison with Kepler’s conception, see Fabbri 2003, pp. 134–140.
16. This absolutely intentional expression appears in Bruno 1996, p. 207.
ne depend point, peut estre sans ce qui depend. Je scay que l’acte interne de Dieu, lequel est tres simple, unique, & infiny, est une mesme chose avec son pouuoir, & son vouloir; mais l’externe qui est recue dans les creatures, quand il les produit, & les conserue, est distinct de ce pouvoir, & de ce vouloir diuin, comme une chose finie, & dependante de l’infiny, & independant.  

Mersenne’s critique of Bruno’s philosophy of the necessity and plenitude of the divine creation coincides with the one that Francisco Patrizi had received during the 1590s from Roman authorities regarding his discussion of the subject in his Nova de universis philosophia (Ferrara 1591), resulting in its prohibition. In spite of adopting a rather traditional position in cosmology (geocentrist and finitist concerning the physical universe) and reserving the infinity for the higher ontological rank of the incorporeal highest heaven, Patrizi had operated in step with the outlines of the Platonic principle of plenitude, concerning the necessity of an infinite creation by God, which was also present in Bruno (Granada 2000, pp. 110–128). Bruno’s affinity with philosophical Platonism (and consequently with its philosophical theology) is perceived by Mersenne the same way that the Roman Jesuits had reacted to Patrizi’s Platonism (Rotondò 1982; Granada 2007, p. 278). Thus, Mersenne places his denunciation of Bruno parallel to the polemic of Zacharias Scholasticus (a sixth century Byzantine theologian) against a disciple of the Alexandrian Platonist Ammonius (fifth to sixth centuries) in a work published in Paris precisely at the beginning of 1624:

Would that it please God that I be the last as well as the first man to fight against these impieties [. . .] although they say nothing new, because they only renovate the old errors and the heresies condemned long time ago. It is what happens with the errors of Giordano, because we read almost the same things in that most excellent discussion which Zacharias Scholasticus had with one of the disciples of Ammonius, the Alexandrian Philosopher (Pleust à Dieu

18. Mersenne 1624, II, pp. 306 f. Cf. ibid., p. 321 f.: “God communicates himself infinitely because the Father communicates all his infinity and all his attributes and his Nature to his Son, and to the Holy Spirit; only these divine, internal and infinite communications are necessary: the other communications, external and limited, are totally free” (“Dieu se communique assez infiniment, puisque le pere communique toute son infinité, & tous ses attributs, & sa Nature à son Fils, & au S. Esprit; il n’y a rien que ces communications diuines, internes, & infinies, qui soient necessaires: toutes les autres communications exterieures, & limitees sont tres libres”); p. 327 f.: “It is not between the creatures, where we must look after the divine fecundity, but in the eternal Persons, every one of them being God himself” (“Ce n’est donc pas dans les creatures qu’il faut chercher la secondité diuine, mais dans les Personnes éternelles, chacune desquelles est Dieu mesme.”)
que je fusse le dernier aussi bien que le premier, qui eût à combattre ces impietez [. . .] encore qu’ils ne disent rien de nouueau, car ils renouuelleront les vieilles erreurs, & les heresies, qui ont esté condamnees il y a longtemps. Ce qui paroist dans les erreures de Iordan, car nous lisons choses presques semblables dans cette excellente dispute qu’eut Zacharie Scholastique auce un des disciples d’Ammonius Philosophe d’Alexandrie).  

Although in *L’impiété des déistes*, the naïve and well-intentioned deist is brought back to the fold of faith by the arguments of the Theologian, that is, of Mersenne, by completely abandoning Bruno’s impieties, Mersenne continued to be attentive to the Brunian case in the following years. Claudio Buccolini’s diligence has discovered, in the *Suite manuscrite* of the *Quaestiones in Genesim* written in the immediately following years, the sketch of a new question on necessity in the divine action (Buccolini 1999, pp. 168 ff). What is really important in this amplification of the polemic is that now Mersenne turns his attention to Bruno’s final cosmological work, the *De immenso et innumerabilibus* which he did not know in his previous writings. In chapters 9–12 of the first book, Mersenne found a systematic and articulate presentation, much more precise and devastating, of Bruno’s arguments in favor of the necessity of the infinite and eternal universe due to God’s simple and immutable nature. In order to proceed to his refutation Mersenne carefully copied the twenty ‘principia communia’ (or the statements universally accepted) that Bruno brings up in *De immenso*, I, 11, plus 10 theses, incompatible with them, which the antagonist (Mersenne in this case) should prove and which Bruno considered absurd (Buccolini 1999, pp. 173–175). Mersenne envisages an outright refutation of these statements “in order that no subterfuge would be left for the impious nor any refuge for impiety” (Buccolini 1999, p. 174). When I previously studied Mersenne’s critique of Bruno (Granada 2000), I often wondered what the French author would have said regarding Bruno’s last argument, in which he comes as close as possible to Spinoza’s theses. Mersenne put on his gloves and accepted the challenge. It is a pity that it seems that he did not draw his sword and did not respond to the Nolan—or at least his response has not been found yet. If his response were to be finally found, it would without a doubt be a great contribution to Brunian studies.

19. Mersenne 1624, I, Preface. On the *De mundi opificio contra philosophos disputatio* by Zacharias Scholasticus see Buccolini 2000, pp. 251f. On Ammonius see Saffrey 1994 with the references indicated there, especially Merlan 1976, where the influence on Boethius regarding the eternal creation of the world and the Trinity is highlighted. On the philosophical affinity between Boethius and Bruno see Granada 2005b.
B) The critique of the universal soul
But the naive deist’s derailment due to his contact with Bruno’s impious doctrine through the libertine circles of Paris does not end here. He was also exposed—as he himself confesses—to the seduction of Bruno’s conception of the universal soul, which the Italian philosopher had discussed in the dialogue *De la causa, principio et uno*.

He personally makes a presentation of this doctrine synthesizing quite closely Bruno’s exposition in the second dialogue of the Italian’s work. A long-winded exposition more than one hundred pages long continues until the conclusion of the book. Mersenne calls Bruno ‘crazy’ (‘fol’) because of this doctrine (Mersenne 1624, II, p. 368) and immediately asserts its absolute incompatibility with the Christian religion, attributing to this work the condemnation and execution of its author: “these are dialogues for which he has been burnt in Rome, as some persons have assured me” (“ce sont ces dialogues pour lesquels il a esté bruslé in Rome, comme quelques vns m’ont asseuré,” Mersenne 1624, II, pp. 363f.).

Mersenne certainly accepts that certain formulations of the doctrine of the universal soul may be compatible with Christian beliefs. This would be the case if it refers to one single universal soul for the universe, excluding man, or coexisting with the particular souls, or conceived as an assisting universal principle—like the intelligences moving the spheres—which, however, do not constitute the substantial form of the bodies (Mersenne 1624, II, pp. 427 ff.). Nonetheless, he energetically underscores that Bruno’s conception of a single universal soul for every individual including human beings is absolutely impious. Beyond acknowledging that phenomena of nature do not demand the introduction of a universal soul, whatever type it may be, it in no way contributes to explaining them nor does it contribute anything for a loftier conception of God (Mersenne 1624, II, pp. 371–385). Mersenne is especially interested in showing that Bruno’s conception subverts the principles of the Christian religion: “the absurdities which follow in theology and in our belief, once this universal soul is presupposed, are so great, that it is impossible for any article in our

22. Mersenne 1624, II, p. 428 f: “the world has only one soul, which grows in the plants, perceives in the animals, and reasons in men; there is no need for an essential form which distinguishes man from animal, or animal from plants” (“le monde n’a qu’une ame, laquelle vegete es plantes, sent es animaux, & raisonne dans les hommes, sans qu’il soit besoin d’aucune forme essentielle, qui distingue l’homme d’avec l’animal, ny l’animal avec les plantes.”)
faith to subsist” (“les absurditez sont si grandes qui suivent en la Théolo-
ogie, & dans nostre creance, cette ame universel estant supposee, qu’il n’y
a pas un article de nostre foy qui puisse subsister,” Mersenne 1624, II,
p. 404). Indeed, it makes impossible—Mersenne declares—the Incarna-
tion of the divine Word in Jesus’ individual person, Eucharistic transub-
stantiation, the same distribution of divine grace according to the individ-
uals, Final Judgment, and the remuneration of human actions according
to an eternal reward or punishment.23

Furthermore, Bruno’s conception of the soul destroys, according to
Mersenne, “the foundations of human life, reason, politics, morals” (“les
fondements de la vie humaine, de la raison, de la police, des moeurs”).24
Consequently, Bruno’s “evil book, in the midst of whose impieties [the libertines] search repose for their spirits” (Mersenne 1624, II, p. 364),
completely dissolves morality and the social order: it annuls human free-
dom, cancels personal moral responsibility since all men end up being
guilty and innocent at the same time, and justifies the dissolution of social
order and hierarchy, since there is no reason for the survival of the differ-
ence between the subjects and those who govern them:

Then, if this universal soul informs all, why would the servants
submit to their masters, once this soul gives them a similar right to
command, even much greater, if this soul acts and operates in the
servant more nobly than in the master [. . . ?]. Consequently, we
should dispense with all kinds of Commonwealths, sovereigns and
Kingdoms, and therefore all will go in confusion and in disorder
(Car si cette ame universelle informe tout, à quel propos les
serviteurs s’assujettissent-ils à leur maistres, puis que cette ame leur
donne un semblable droit de commander, voire beaucoup plus
grand, si cette ame opere, & agit plus noblement dans le serviteur
que dans le maistre [. . . ?]: en suite de quoy il faut dire Adieu à
toutes sortes de Republiques, de souverains, & de Royaumes, & par
ainsi tout ira en confusion, & en desordre,” Mersenne 1624, II,
p. 402f)

23. Mersenne 1624, II, pp. 405 f., 440–459: this is a long development that evidences
the suppression of human freedom (pp. 442–449), the elimination of transubstantiation
(pp. 450–455), and the radical questioning of the death and resurrection of Christ and, at
length, of human beings as well (pp. 455–459).

24. Mersenne 1624, II, p. 402. Cf. p. 397: “we ought to conclude that there would be
no good, no evil, and that moral philosophy would be just a chimera” (“il faudrait
conclure qu’il n’y auraoit plus ny bien, ny mal, & que la Philosophie morale ne seroit
qu’une Chimere”).
Evidently, Bruno does not accept that these consequences follow from his doctrine of the universal soul as the only formal substantial principle of the infinite universe that indeed reduces the individual souls to modes and accidents of the universal principle. Mersenne, in turn, who certainly does not consider the function of the soul within the entire Brunian metaphysics, does not have the slightest doubt about it. However, although it is true that many reservations can be had about the appropriateness of Mersenne’s critique on the moral effects of Bruno’s conception of the universal soul, we have to acknowledge that he is right to highlight Bruno’s theological heterodoxy and to contend that identifying the universal soul with the efficient cause of the (infinite) universe (Mersenne 1624, II, pp. 381 ff.) implies the negation of the creation and the affirmation of nature identified with God.

Bruno’s conception of the universal soul and the principle according to which divine action pervades merely the infinite and necessary nature, certainly imply the elimination of every supernatural action proceeding from the divinity, as well as the suppression of every special or privileged relationship of man with it. The result is that in Bruno man loses all exceptionality with respect to the rest of the animals, which is reflected in the irrationality of the alleged resurrection of bodies. Mersenne is aware of these implications (Mersenne 1624, II, pp. 391, 404) whereby Bruno connects with the critique of the Christian religion by the ancient paganism, for example by Celsus’ critique in his True Discourse. In this sense Bruno represents, in contrast with Mersenne who is a sincere Christian, a return to the pagan conception of the world as well as of nature. This is the restoration, in sum, of a program which later on shall be adopted—mutatis mutandis—by authors like Spinoza, Schopenhauer, and Nietzsche. In any case, coming back to the question of the infinite universe, Mersenne’s let-

25. See Del Prete 2000, pp. 64 ff. On Bruno’s conception of the hierarchy and inequality among men, as well as the consequent educational function of religion among the common people, see Granada 2005a, Introduction.

26. Mersenne 1624, II, pp. 414, 417. Mersenne underlines, in general throughout chapter xxiii, that Bruno’s conception of the universal soul—according to the exposition in the second dialogue of De la causa—proceeds from the doctrine of the prisca theologia (of Orpheus, Platonism, and the Stoa). Nonetheless he strives to establish that the Greek doctrine, derived, in his opinion, from Hebrew wisdom, had certainly introduced a remarkable confusion regarding the pure and true wisdom of Israel with respect to the relationship between the created universe and its Creator, but had not reached Bruno’s and the libertines’ impiety of deifying nature and rejecting divine transcendence. Thus, Mersenne strives to save Platonism and Stoicism as compatible with the Christian truth after being correctly interpreted and purified of errors. Del Prete, 2000, p. 68 has correctly indicated this point.
ters to Jean Rey of 1631 and 1632 do not necessarily indicate—as it appears to us—a modification in his attitude towards the problem and towards the Italian thinker himself. It is true that these references do not show animosity against Bruno, and that the first one includes him in the group of certain unspecified infinitists. But this neutrality towards Bruno is due to the fact that Mersenne now looks at the question of the infinite from an exclusively cosmological and physical point of view, independently of the metaphysical and theological dimension of the problem, that is, in absence of every consideration about the derivation (and even more, of a necessary derivation) from God. If the question is proposed in these terms, the reasons for Mersenne’s animosity disappear.

To what “other demonstrations” against the infinite effect of an infinite cause can Mersenne be referring to? What can be the “easy” solution to these demonstrations? Although we can merely make more or less founded conjectures in this respect, we believe that it is possible that Mersenne is referring to the arguments against the infinite universe in the *Quaestiones in Genesim* where, speaking of the plurality of worlds, he had rejected an infinite effect equal to God (“effectum infinitum Deo coaequalem”) as far as a second God (“Deus alter”) is implied (Mersenne 1623, col. 1092). After reading and making his critique of Bruno, Mersenne clearly distinguishes the merely physical (de facto) question from the metaphysico-theological one which, in Bruno’s version, applies the attributes and qualities of the divine cause to the created universe, thereby raising it to a divine level. The ‘easy solution’ to the ‘demonstrations’ against the infinite universe logically does not consist in accepting the impious Brunian necessitarianism, but rather in acknowledging that just as the infinite universe does not necessarily exist, neither is it necessarily excluded, because it is neither contradictory in itself nor to God. It is simply a possibility, dependent on the free election of the divine will.

The letters to Rey show that the possibility (of *potentia absoluta*) of an infinite universe, understood as a contingent creature, does not frighten

27. Mersenne to J. Rey (1. 9. 1631): “And Bruno, who fights in company of several for the infinity of the world, despoils you of the center, that does not exist in the infinite” (“Et puis Jordan Brun, qui combat avec plusieurs pour l’infini du monde, vous ravit le centre qui n’est point dans l’infini”, in Mersenne 1969, p. 187).

28. Mersenne to J. Rey (1. 4. 1632): “As for Giordano, although he uses bad foundations, nevertheless it is probable enough that the world is infinite, if it can be infinite. Then, why do you want that an infinite cause not produce an infinite effect? I have presented in the past several arguments against this, but the solution to them is easy” (“Quant a Jordan, encore qu’il se serve de mauvais fondemens, neantmoins il est assez probable que le monde est infini, s’il le peust estre. Car pourquoi voulez-vous qu’une cause infinie n’ait pas un effet infini? J’ay autresfois eu d’autres demonstrations contre ceci, mais la solution en est aisée,” Mersenne 1969, p. 275).
Mersenne. What he cannot accept is the necessity of the infinite universe postulated by Bruno, since this is equivalent to the divinity of the universe and to its identification with God. It seems that in these letters to Rey he left out this dimension of the infinite in order to regard it as a pure question of fact, that is, of potentia ordinata, resulting from the free divine election and hence as a contingent and voluntary effect of God. In other words, the letters to Rey presuppose an insertion of the question of the infinite universe within a framework acceptable to Mersenne, the framework of the Christian theology. Once Bruno’s metaphysico-theological framework has been eliminated, the infinite universe becomes an empirical problem whose verification is surely impossible, and additionally—as Mersenne will say in the Questions inouis of 1634—something “very dubious and perhaps very false.”

References

29. Cited in Mersenne 1969, p. 284: “I omit several other questions about which I do not hope that we can never reach any certainty before they will be revealed to us by God. For example, [. . .] if the world has a centre, if it extends to the infinite, as several think, in order that a passive infinite corresponds to an active infinite and the real space, which is conceived as infinite, be filled; and a thousand more of things which some people believe they are very true, although they are very doubtful, and perhaps very false” (“Je laisse plusieurs autres choses dont je n’espere pas que nous puissions jamais avoir aucune certitude, jusques à ce que Dieu nous les revele. Par exemple, [. . .] si le Monde a un centre, s’il s’étend à l’infini, comme croient quelques-uns afin qu’un infini passif responde à l’infiny actif et que l’espace reel, que l’on s’imagine infiny, soit remply; et mille autres choses que plusieurs croyentestre tres certaines, encore qu’elles soient tres douteuses, et peut-estre tres fausses.”).